THE CULTIVATOR.

NEW "TO IMPROVE THE SOIL AND THE MIND. SERIES.

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MR. HORSFORD'S LETTERS.—NO. XIV.

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ANALYSIS OF PEAT ASHES.

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Giessen, July 27, 1846.

MR. TUCKER—I send you below a peat ash analysis, which I recently made at the request of Baron Von Liebig. This ash is sold extensively at Opladen, and enjoys a high reputation as a manure:

Peroxide of Iron,	7.84
Alumina,	9.73
Lime,	4.58
Magnesia,	0.29
Potash,	2.45
Chloride of potassium,	0.36
Sulphuric acid,	3.58
Soluble silica,	21.24
Sand and traces of coal,	51.15
	101.22

A glance at its constitution, and a recollection of the doctrines of the Giessen Professor, will at once explain its utility. The alumina is doubtless due to the soil gathered up with the turf. The absence of phosphates might have been expected in the ashes of plants where seeds are invisible and which form no part of the food of animals or birds. The potash and gypsum, sulphuric acid and lime, are in good proportion. But the soluble silica is immense.

When it is remembered that the stalks of grasses and grain need silica in order to their strength—in order to their standing erect—and how much of grain that would otherwise be an excellent crop, is lost because of its want of support when the head should be developing, it will readily be seen how such an ash may be valued as a manure.

A friend of mine, assistant to Prof. Will, has been employed by a Prussian agricultural society to analyze six varieties of soil—for each of which he is to receive 30 florins, or $72, for the whole. The labor will occupy him some three or four months, and in the end will be scarcely of any value whatever to those who employ him. Not because his work will be indifferently performed,—for he is an excellent chemist,—but because it would be unjust in the next year to base farming labor upon the analysis of soils gathered last year.

His method is the following: He makes a combustion in oxide of copper, and another in soda-lime, to determine the organic matters and ammonia. Treating the whole with water he analyses the soluble products. Then with nitric acid he analyses what is soluble therein, and then melting with baryta, he determines the absolute amount of potash and soda. To one familiar with the conditions of the problem, it will be seen that anything short of the course he has proposed to himself, would leave questions unanswered to which chemistry might have replied.

A soil is composed, exclusively of the decayed organic substances, of the rock crust of the earth, more or less pulverized. This crust was originally granite, or hypersthene, or basalt, or trap, or some other unstratified, or mixtures of two or more of these rocks. The sedimentary rocks are fragments of previously formed masses of greater or less fineness, and containing more or less remains of organic forms. A mixture of both with mouldering animal and vegetable matter makes the arable land of our fields. The inorganic materials are every day becoming finer and finer. Cold and heat, moisture and dryness, carbonated water, animal and vegetable life, and other instrumentalities are combining to reduce the larger to lesser masses; of these there are all dimensions. Some are fine enough to be dissolved—others that will reach this condition in the coming fall, others that will be soluble in another year, others in ten years.

Of these pure water will dissolve some—the carbonates of soda and potash, and the salts of ammonia: carbonated water others—the phosphates of the alkalies and alkaline earths: muriatic acid still more—the other compounds of lime or magnesia, the alumina, the iron, and some of the silicates: nitric acid still more; and melting with baryta will bring all the silicates into a soluble state. Only those portions soluble in carbonated water are immediately available for crops. Those soluble in muriatic acid and not soluble in carbonated water, may become available next year; and portions of those now requiring to be melted with baryta in order to their solubility will ultimately become finer and finer, and at last soluble in muriatic acid, and then in carbonated water—that is to say, more or less—for some of these compounds resist the agencies that ordinarily act upon rock masses.

Now all this laborious process is gone through with for earth from one cubic foot of soil, while every other cubic foot in the field may differ from it; and it reveals only the present condition, not what it may be a short time hence. The frosts and rains of the coming fall and winter will spring apart the larger pebbles, or eat away their irregular angles, and other ingredients will be presented, while those now soluble will have been taken up by plants or washed away by rains. Again, the most important ingredients are usually in the least proportion—the potash or soda—the gypsum—the phosphates and the soluble silica—constitute usually but a fraction compared with the sand, alumina, and iron; and the former are frequently present in sufficient quantity for the full development of vegetables without their having been recognized. Soils of West India cane plantations have been analyzed in Great Britain

without potash being found in them—though this ingredient is present in the ashes of the cane plant.

What shall be done then to learn the capacities of a soil? Liebig has proposed to observe the weeds or plants which naturally grow there, and finding those which flourish and come to maturity—examine the table of ash analyses—comparing this table with that of a wheat, or oat, or corn, or barley analysis—straw and grain—some idea of its capacity may be justly derived.

This idea makes the subject too simple to be received for a time. Still it will gain ground, as has the view of the essential importance of mineral manures, until some of the most earnest wishes of this laborious chemist are realized to the agriculturist and the world.

Respectfully yours, E. N. Horsford.

COLMAN'S EUROPEAN AGRICULTURE.—PART VII.

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This number opens with a continuation of the subject of "Tile and Pipe Draining," followed by chapters on "Subsoil-Plowing connected with Thorough Draining," "Irrigation," "The Rotation of Crops," "Soiling, or House Feeding," and "Crops."

Mr. Colman is of the opinion that the thorough draining and subsoil plowing of the land, constitute the "great modern improvement of English husbandry," and that "they seem destined to increase the products of the country beyond any calculations which have yet been made."

In relation to the application of these practices to the United States, he thinks there can be no doubt that in many situations, especially in the older states, they would prove highly beneficial. He says—"I know many farms and many tracts of country, where by such a process, the product of the land might be expected to be doubled, and I have a confident hope that, in many parts of the country, where wheat is now liable to be thrown out by the severity of the frost, or to suffer blight from the wetness of the soil, to which, in many cases blight is to be attributed, we may, by means of this great improvement, be enabled to grow wheat with success. Our crops of potatoes, which we generally plant by preference in low lands, are often destroyed by excessive wetness arising from heavy rains, which remain on the top of the soil, for want of ready and sufficient drainage. I have known, in repeated instances, the seed to be destroyed in the spring; and the crop in the autumn to be rotted, in such cases after it had become ready for the harvest."

The objections to this improvement in this country, are, 1st, the liability of the clay pipes used in draining to be broken by frost. This objection Mr. C. proposes to obviate by "laying three feet of the ends of the drains with broken stones, through which the water would find its way." He thinks pipes or tiles laid three feet, or even two feet under ground, would not be affected by the frost.

The next objection mentioned, is "the difficulty of finding suitable persons to execute the work." It is all important that a system of draining, if commenced at all should be well executed, and as yet "a class of skilful, scientific, and experienced drainers can scarcely be said to exist among us." Time and demand, may, however, it is added, "soon produce them." It is remarked, also, that it would not be easy to find laborers to execute the work. "No native American laborer," says Mr. C., "among the thousands I have known or employed, would have had patience, application, perseverance, and constancy, sufficient to execute drains after the perfect and scrupulously exact manner in which they are made in England." Mr. C. says, "our habits of haste, our habitual conceit of our superior judgment, &c., are national peculiarities which operate against any minute, precise, and exact labor."

The great objection, however, which will be urged against such improvements, Mr. C. thinks "will undoubtedly be the want of capital and the expense." He gives no positive opinion on this part of the subject; but remarks that in England, with scarcely an exception, so far as he has seen, the improvement is sure to be remunerative in a very high degree; "and for that reason," he continues, "the government are proposing a most beneficent measure in offering the loan of capital upon adequate security, for the accomplishment of such improvements, and in other cases allowing the owners of entailed estates to raise a certain amount upon the mortgage of such estates for the same purpose. He adds that where such improvements have been judiciously effected in this country, though they have generally been on a very limited scale, the result has afforded an ample compensation.

The extent to which drainage is carried on some large estates in England, is almost surprising. The Duke of Portland, it is said, had sometime since completed more than 7000 miles of drainage on his estates. The Duke of Bedford informed Mr. Colman that he made about 200 miles of drainage on his estates in a year, besides about 50 miles in his park grounds. Lord Hatherton at Teddesley Park, whose estate Mr. C. had more than once visited, had some years since completed the drainage of more than 467 acres, at an expense of £1508, 17s. 4d.; and had increased the rental of his land, by these operations, to the amount of £435, 2s. 4d. per year, or at the rate of 29 per cent. upon the capital expended. But such is the rapidity with which agricultural improvement is advancing in England, that, as Mr. C. states, "draining fully as efficient as the above, is now reduced to one half of the expense."

In view of the many examples of agricultural improvement which Mr. Colman has witnessed, he subjoins some excellent moral reflections. He says—"it is truly delightful to witness such an application of wealth; and the benevolent mind is never more disposed to envy the possession of power, than when it is thus beneficently exerted." He admits that the erection of costly mansions and palaces are in some degree useful, by circulating a large amount of wealth where it is needed—that "there is a pleasure in contemplating the skill and architectural taste displayed in their structure, the beauty of their arrangements, and the luxury and splendor with which they are adorned and finished. But often," he continues, "they are mere monuments of vanity and display; they are a serious draw-back upon the resources of the proprietor; they are much beyond his wants and convenience; they involve a necessity of a style of living which sometimes brings with it as much vexation as pleasure."

On the other hand—"how different are the results of the application of wealth to the purposes of agricultural improvement; in converting land which is waste into that which is productive; in the employment of the poor in useful and healthful labor; in increasing the means of human and brute subsistence; in advancing the real wealth of the community; in the actual creation of wealth without loss or injury to any one; in making improvements which have in themselves a reduplicative energy, so that the more improvement is made, the more the power of improving is extended and enlarged; in exhibiting an example of skill and success which excites no ill-will, because it injures no man's interest, but is everywhere beneficial, and prompts to a wholesome emulation; which leaves behind it not traces drawn in the sand to be obliterated by every wave that rolls upon the shore, but which are to endure for generations and centuries to come; and which in truth constitutes one of the most honorable and enduring monuments which a reasonable and well disciplined ambition of posthumous reputation and fame can desire or seek after!"

The "Process of Draining," which Mr. Colman describes with considerable minuteness, and in a plain and clear manner, we have not room to give, but must refer those particularly interested to his own language.

But it is "Thorough Draining in connection with Subsoil-Plowing" that Mr. Colman thinks productive of the most beneficial results.

"Subsoil-plowing," he says, "is never to be recommended without first draining, unless in cases where

the lower soil is extremely loose and porous, so that the water can pass immediately off. The late Mr. Rham, a distinguished farmer, attempted this upon an adhesive soil, but found that, to use his own expression, it held water as a sponge, and became quite unmanageable until he proceeded completely to drain it with tiles. 'Until there is an escape for the water through the subsoil, any opening of it but provides a greater space for holding water, and will rather tend to injure than improve the soil.' "

"RESULTS OF SUBSOILING AND DRAINING.—The improvements effected by the process of thorough draining and subsoiling have been most remarkable. The manager of the farm of Sir Robert Peel says, 'that he can confidently state that the crop of turneps, after the above treatment, was four times the quantity in weight ever produced in the same field at any previous time.' Mr. Smith says in an early treatise on this subject, that when land has been thoroughly drained, deeply wrought, and well manured, the most unpromising, sterile soil becomes a deep, rich loam, rivalling in fertility the best natural land in the country, and from being fitted for raising only scanty crops of common oats, will bear good crops of from 32 to 48 bushels of wheat, 30 to 40 bushels of beans, 40 to 60 bushels of barley, and from 48 to 70 bushels of early oats, per statute acre, besides potatoes, turneps, mangel-wurzel, and carrots, as green crops, and which all good agriculturists know are the abundant producers of the best manure."

Mr. Smith also states that when he commenced operations on his farm, the soil of a part of it was not more than four or four and a half inches deep, but since he has drained and subsoiled it, he can turn up sixteen inches of good soil.

It seems however, that equal success has not attended subsoil-plowing in all cases. Where the soil is very adhesive and heavy, it soon runs together and becomes as impervious to water as it was before the subsoil had been stirred. Hence, thorough draining is essentially necessary in connection with the loosening of the substratum.

SUBSOILING LIGHT LANDS.—Though some may be surprised that this system should be applied to light and sandy land, yet Mr. Colman states many cases of its beneficial effects have come within his own knowledge. He mentions the case of a man having 400 acres of sandy land which had been used as a rabbit warren. The surface was undulating, the swells being covered with heather, and the hollows with aquatic plants. The soil of the hills was a sterile sand, which had been heretofore cultivated and then abandoned. "About six or eight inches below the surface, this sandy soil seemed to become hardened into almost a sandstone, with the occurrence occasionally of an impervious bed of ironstone, presenting wherever it did occur, a complete obstacle to the entrance of the ploughshare." After this land had been thoroughly subsoiled, it yielded over 80 bushels of oats to the acre, and when the account was written, had a beautiful crop of wheat growing on what had been the worst portion.

Under the head of IRRIGATION, Mr. C. gives some interesting facts, to which we may refer hereafter. He mentions that great pains are now being taken in the vicinity of all the cities and large towns, to save the water of the sewers and apply it to the soil. Instances are given which show that such liquids have produced a very fertilizing effect—the lands to which they were applied yielding the most bountiful crops. The application of urine to lands is also becoming quite general in England, and the best means are being adopted for saving and using it. The example of Mr. Dickenson, who keeps 150 to 200 horses, in London, is cited. The urine of the horses is conveyed by channels into a tank, and is from thence emptied into a watering cart by a pump. About five miles from London Mr. D. has a farm, to which all the urine is carried and distributed, by means of a watering-cart, on the growing crops. Before it is used, however, it is mixed with water in the proportion of one part of urine to two parts water, and about 1100 gallons of urine and 2200 gallons of water are used per acre. It is applied mostly to grass land, and is put on immediately after the crop has been cut. The kind of grass cultivated is mostly Italian rye grass, of which at the time of seeding, (autumn,) four bushels were formerly sown per acre, but with an improved sowing machine, two bushels only are now used, and yet the plants appear to be as thickly set as formerly, when by hand-sowing double the quantity of seed was given. Mr. D.'s soil is a stiff clay, which is mixed with rubbish gathered from the removal of old buildings. The produce of grass where the urine is applied, is worthy of note. It is stated that in 1844, the rye grass was mowed ten times.

First in March, when it was about ten inches high; April 13, a second time; May 4, a third time; May 25, a fourth time; June 14, a fifth time; July 22, a sixth time. "Immediately after each of these crops, the land was watered once from a London street watercart, with one part of urine from the stables, and two parts of water, the produce of each crop increasing with the temperature of the atmosphere from three-quarters of a load per acre, as hay, to three loads per acre. The crop having shed a quantity of its seed, it was feared the urine might have injured its growing. It produced, however, three or four light crops afterwards.

"In 1845, his first cutting was on the 6th April; his second, 3d of May; his third, 9th of June. On the 22d of September, the fourth crop on the land measured three feet; the sixth crop, on land which had been previously mowed five times, measured one foot and a half."

At Mr. Colman's request, Mr. Dickinson took special pains to ascertain the exact yield of hay per acre. Of the fifth crop of the season, he cut a yard square, which was first dried twelve days in the open air, then dried three days in a room heated to 59 degrees, then three days in a kitchen at 70 degrees of heat, and lastly two hours before the fire. The weight of it at the close of the process, was 2 lbs. 6¼ oz., which, it is said, would give at the rate of about 5 tons 3 cwt. to the acre.

Mr. Colman thinks that in the neighborhood of cities, in the United States, a vast amount of urine might be collected, at small expense, and carried out by the neighboring farmers without offence to any body, and with very great public and private advantage. Mr. C. quotes from Liebig, that in a city containing 100,000 inhabitants, there is produced annually 24,440 tons of urine, sufficient to manure, by irrigation, 50,000 acres of land, and worth at least $60,000.

SOILING, OR HOUSE FEEDING.—Mr. Colman informs us that the practice of soiling does not prevail to a very great extent in England; but he says horses are almost universally soiled upon clover, rye grass, rye, vetches or tares, or rye and vetches sown together. The horses are frequently kept upon them without any additional feed; but when on the road, or when the farm work is severe, they require grain of some sort in addition."

"That a great saving of food is effected by soiling there can be no doubt; no one rates it at less than two to one; many say that three animals, some assert that four animals, can be well kept upon the produce of land, if soiled, where not more than one could be kept if depastured. The difference, undoubtedly, in this respect, is very great in favor of soiling; but its expediency upon the whole, in any given case, will be affected by a variety of local circumstances."

Mr. C. is of opinion, however, that the soiling of work horses and work oxen on a farm, is always to be advised. The reasons for this are, that they require the most particular superintendance, which can only be given them when they are near at hand; they should be protected against extreme changes of temperature which they are liable to suffer when turned at night into a pasture; they require to have their food prepared and brought to them, to give them opportunity for sleep and repose—a horse turned empty at night into a pasture, being obliged to pass a great part of the night in filling his stomach.

The great advantages of soiling are, however, deemed to be the increase of manure and the keeping of more cattle on the same land.

"The increase of manure from soiling is very far beyond what would be supposed by any one not experienced. Where proper provision is made for this purpose, all the manure of the animals is saved, instead of being left and scattered either on the road-side, or in fields, to be dried up by the sun or washed away by the rain; and it is at hand to be applied as the farmer shall choose. It gives him an opportunity of converting all his long litter and the straw of his farm into the most valuable of manures, by using it as an absorbent for a large amount of the liquid portions of the excrements of his cattle. It affords him likewise the power by properly constructed gutters and tanks, of saving his liquid manure—the best portion, if well managed, and, according to the estimation of many eminent farmers, compared with the solid portions of the manure, in point of value full two to one.

"The next great advantage of soiling is the increased stock which may be kept on the same land. From various facts which have come under my observation, where the soil is carefully and judiciously cultivated, and duly manured, and a proper rotation observed, I believe that on land under artificial or esculent crops, three animals may be soiled where one only is now grazed. I believe this may be done with equal or superior advantage to the health and thrift of the animals, and that in most cases, the increase of valuable manure will much more than pay for any extraordinary trouble of attendance.

"Another advantage is the saving of interior fences upon a farm. Where cattle are kept constantly in barns or yards, the necessity of enclosures is of course done away; and separate from the saving of expense in the case, the convenience of cultivating in long lines and open fields, the saving of land, and the superior neatness of the cultivation, are great and obvious advantages."

Mr. C. states that it has been determined by experiments which have been made in England, that of all food, grass fed green will produce the largest secretions of milk. "It is found, likewise, by experiment," he says, "that in order to the largest secretions of milk, the temperature in which the animal is placed must be comfortable; she must be free from external annoyances, and she must be 'at ease in her mind.'"

Mr. Skilling, the manager of the school farm, of Glasnevin, near Dublin, practices soiling, and Mr. Colman gives a sketch of his system. The animals are kept in houses or stables, which are well ventilated and kept perfectly clean. The animals are well curried and brushed every day. There is one particular person to superintend and pay attention to the feeding, "and one of the most important parts of his duty is, to ascertain the appetite of every beast. Cows, like other animals, will eat less or more, and they ought to be supplied according as they require it, being kept rather with an appetite than otherwise." After the animal has finished its meal, all the refuse is immediately taken away, and nothing allowed to remain in the manger before it. The cattle are fed at exact times. They well know the feeding hour and will be disappointed and fretted if neglected, and neglect is prejudicial both to milking and fattening. They should not be kept constantly to the same kind of food. "No matter how nutritious in itself, there ought to be a variety; a change, if possible, for every feed." He gives six feeds a day, summer and winter, beginning at six in the morning and ending at nine in the evening, viz: at 6, 8, 12, 3, 6, and 9. They get water in their stalls at ten in the morning and five in the afternoon, and are turned out for exercise from 10 to 11. The kinds of food are chiefly the following: In summer, at 6, perennial or Italian rye grass and clover; at 8, cabbages or leaves; at 12, cut hay and straw, (this being given to prevent the purgative tendency of the green food;) at 3, vetches; 6, mangel wurzel leaves, rape, or other refuse from the farm or garden; at 9, clover or grass, or dry feed if the state of the bowels require it. In winter first feed with steamed food at 6; at 8 with turneps, raw; at 12, with cut hay and straw; at 3, with mangel wurzel, raw; at 6, with steamed food; at 9, with hay and straw. Mr. Skilling adds—"I have ascertained that when my present farm was in pasture, it pastured eigteen cows in summer; but now it feeds sixteen cows and three horses all the year round, and I have as large a portion of grain crops on the same land as most other people, besides."

Mr. Colman cites also the management of Mr. Blacker, the manager of Lord Gosford's estates, in the county of Armagh, Ireland, where very great improvements have been made, and the condition of the tenantry much benefitted, within a few years, by the introduction of the system of soiling.

In regard to the practice of soiling in the United States, Mr. Colman thinks it may be done with good advantage in some instances, especially in the older states, and that it would enable farmers to "keep three times the amount of stock they now keep, and to much more advantage with regard to produce and profit." "The great means of improving our farms," he adds, "are in the amount of stock which we keep upon them, always premising, however, that the stock to be profitably kept, must be well kept; and while every farfarmer loses who does not keep all the stock his farm will carry, he perhaps loses still more who keeps more stock than he can keep well. But every effort should be made by a good farmer to increase the capacities of his farm to their utmost extent; and by the number of cattle and sheep which he can amply provide for, may be determined his means of enriching his farm and enlarging the profits of his husbandry."

BREEDING CATTLE.

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[The following judicious remarks in relation to the breeding and management of cattle, are taken from the "American Herd Book," an able work lately published by LEWIS F. ALLEN, Esq., a few copies of which are for sale at our office.—ED.]

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To such as intend to breed cattle of decided excellence—and they, we hope, constitute all—we recommend them to select bulls of only *moderate size*, coupled with all the *fineness* of bone and limb, consistent with a proper masculine vigor and energy, coupled with *fullness* of carcass and *ripeness* of points; so as to embody *great substance within small compass*. In addition to this, let him be as deeply bred, that is, of as pure blood, and of as long ancestry (not depending altogether on the herd book for that, as many of the very best class of animals have comparatively short *herd book* pedigrees) as possible; and above all let him be descended of good milking stock, where milkers are to be bred in his progeny. Your cows we will presume are such as your opportunities have enabled you to procure, but of approved blood. If the bull selected *breed well to your cows*, have no fears of continuing his services to a second, or even a third generation of his own get. Such practice will produce uniformity, and uniformity is one great excellence. No matter for the color, so that it be within the Short-Horn colors. Above all things, avoid coarseness—looseness—flabbiness—and a general tendency in the animals to run their valuable points into offal. Such cattle, of whatever breed, are great consumers, bad handlers, light provers, tender of constitution, and unsatisfactory altogether. If you have an occasional production of this sort, transfer it to the shambles or elsewhere, with all dispatch. On the principle that "like begets like," which is an unerring law of nature in the long run, with the presence of such in your herd, you will be perpetually afflicted with the production of animals, which by hereditary descent, sympathy, and the thousand accidents springing from association, will be neither creditable to your good breeding, nor satisfactory to yourself.

Feed *well*: not lavishly. Your cows should be in good breeding and milking condition—nothing more

and your bulls in fair working order. Such is the condition most consonant to nature, and promotive of the highest animal health. The scale of points laid down in our introduction, with the occasional remarks on the practice of breeders, as we have passed in our history, detail what a good animal should be. These, together with a close examination of the general figure of good cattle, as illustrated in our plates, will aid the judgment of the breeder. With a well-balanced judgment of his own, and a sound experience, they will be a safe guide, and he may go on his way rejoicing.

A single word to such, if any there be, into whose hands these pages may fall, as deride the value placed on superior cattle by their breeders, and such as know their real worth: Breeding *good* animals is a subject of great labor, and incessant care. Such labor cannot be bestowed for nothing. To breed successfully, requires skill,—talent,—research,—observation; and all of these of a high order. Let the breeding of our fine stocks fall into unworthy hands, and hardly a single generation of man will pass before the real lover and promoter of the matchless herds which now so proudly embellish many of our rural estates—a source of pleasure, of pride, and of comfort to their possessors—will mourn over their degeneracy, and which the time of another generation with great labor and constant solicitude would scarce suffice to reinstate in their former splendor and excellence. Talent and labor of this kind cannot be had for nothing; and without remunerating prices be maintained, the downfall of the Short Horns in America will sooner or later be at hand.

THINGS BY WRONG NAMES.

INSECTS are the greatest enemies to the crops of the farmer, and it is to be regretted that a more thorough knowledge does not prevail of their habits. Great confusion is made from wrong names being applied to insects, or from several species of very different habits being known by one name. For instance, one man gives a remedy for what he calls "the weevil;" the remedy is adopted by another man for an *entirely different* insect which he calls by that name, and the consequence is, as might be expected, the prescription proves totally useless.

In one section of the country, the wheat-midge (*Cecidomyia tritici,*) is called "weevil." The larva of this insect, a small orange-colored maggot, is found in the heads of wheat, between the chaff and kernel, and often does much damage to wheat while growing, but *not after it is harvested.*

Another insect sometimes called the "black weevil," (*Curculio granaria,* Linn.,) is injurious to wheat and and other grain in its dry state, or while deposited in granaries; but *does not injure the grain while standing in the field.* This is a coleopterous insect, and is a true weevil.

The grain-moth, (*Tinea granella,*) is also sometimes called weevil, in some sections. We presume it is this insect which at the south is known as the "white weevil," "fly weevil," "flying weevil," &c. This is totally different from the true weevils, as it belongs to the same family as the well-known clothes moth. [See Mr. OWEN'S article, with cuts, on another page.]

This subject was brought to our mind by seeing an inquiry, in the *Massachusetts Plowman,* for a remedy against "an insect called a weevil." From the language used by the inquirer, we have no doubt that the insect he alluded to was the wheat-midge before spoken of, and not the weevil. He says—"my *wheat crop* was considerably injured this season by an insect called a weevil."

In answer to the inquiry, the editor of the *Plowman* gives an article written by a Georgian, in which it is recommended that grain affected by weevils, be spread in the sun, and the casks, in which it had been kept, heated over a bark fire. The article speaks also of remedies against the "white weevil," which he says, "attacks wheat only in large stacks, in houses when in the straw, and in the chaff after it is threshed."

The remedy of sunning the grain, &c., is evidently intended to apply to the *Curculio granaria,* and could be of no use whatever in obviating the attacks of the wheat-midge, popularly known as weevil in New-England and this vicinity.

The editor of the *Plowman* observes that so far as he knows, "the weevil has not proved very destructive to wheat-crops in Massachusetts; though in southern and western states great complaints are made."

The fact is, however, that an insect *called* weevil (as above described,) *has* "proved very destructive to wheat crops in Massachusetts" and over a large portion of the northern section of the country, though *this* insect is scarcely known in the "southern and western states," and it is not improbable that the author of the inquiry in the *Plowman,* and the writer referred to for a remedy, had each no knowledge of the insect to which the other alluded.

SAXON vs. SPANISH SHEEP.

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MR. EDITOR—In your August number, I noticed an article purporting to give the transactions of a meeting of wool-growers convened at Lowell, Mass., on the 1st day of July. I perceive by that article, that John Brown, of Akron, O., and Jacob N. Blakeslee, of Watertown, Ct., have entered into an arrangement for the purpose of testing the relative value of the fleeces of their sheep, and have agreed that Samuel Lawrence, Esq., of Lowell, shall be the umpire for deciding the case. I noticed, also, that the wool-growers throughout the United States are requested to "participate in this competition."

Now the object of this communication is to inquire:

1. Whether the inference is correct that the arrangement spoken of, is designed to test the value of the fleeces of Saxon sheep on the one hand, compared with those of Spanish, (or as commonly called, Merino) sheep on the other?

2. In determining what are Saxon and what Merino sheep, what will be the criterion? Will those only be considered Saxons which are descended *wholly* from stock originally brought to this country from Saxony? and those only Merinos which are descended wholly from Spanish sheep—that is, such as have not come, (either themselves or ancestors,) through Saxony?

3. Would an individual having sheep not wholly of Saxon descent, but intermixed with Merino, be allowed to compete with them against Merinos?

Answers to these inquiries would greatly oblige

A WOOL-GROWER.

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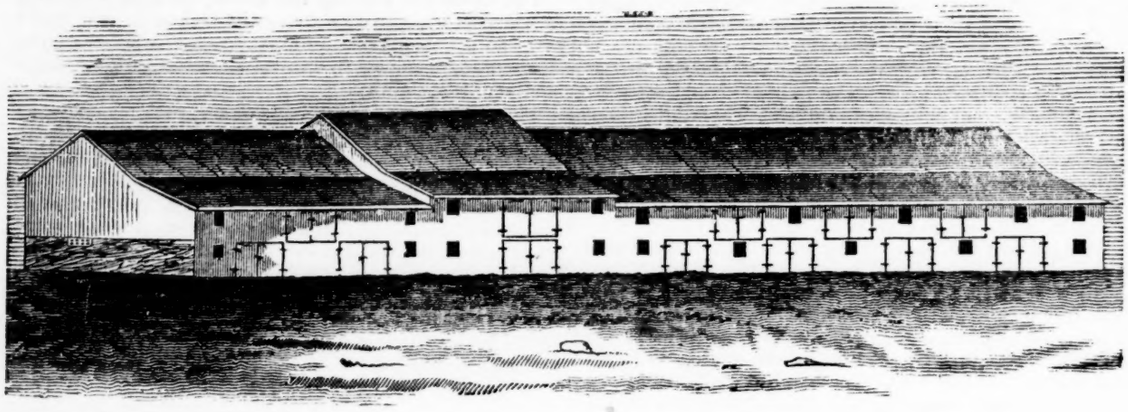
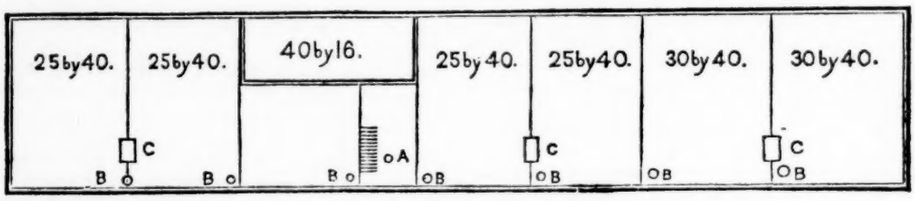
[Without presuming to give an *authoritative* reply to the above, we will just observe that from the tenor of the article referred to by our correspondent, (which we copied from the Lowell *Courier,*) it would seem that the arrangement spoken of was designed to test the comparative value of the fleeces of Saxon and Merino sheep. For example, the article states in the first place, that there was much discussion at the meeting between Messrs Brown and Blakeslee, as to the "relative properties of the Saxon and Merino sheep, and more especially of their fleeces;" and it is expressly stated that the arrangement was finally entered into for the purpose of "testing, and as far as could be done, settling the question of the relative value of these two important breeds of sheep." We must leave to Mr. LAWRENCE a more definite answer to "A WOOL-GROWER'S" queries.—ED.]

HENS.—Mr. Crocker of Sunderland, N. H., has kept a regular account of the expenses and profits of seventeen hens, showing the following expenses:—The hens, cost him in food for a year $10.78, while they brought him in eggs at 13 cents a dozen and chickens at 15 cents each, $27.25, making a balance in his favor of $16.97.





SHEEP BARN.—Fig. 94.

THE above cut, (fig. 94,) represents the barn of Messrs. TILDEN, of New-Lebanon, to which we referred in our September number. It is placed on the side of a ridge or elevation, and has a cellar under the whole of it opening to the south. It is about 180 feet in length by forty in breadth. The floors for the entrance of teams run crosswise of the barn, and are accessible from the rear, where the surface of the ground is nearly level with the sills. The ground of the cellar and yard is dry and gravelly. Doors and windows open from the cellars into the yard, which by being closed or opened, secure the proper temperature for the sheep, they being kept in the cellar and yard the whole winter. There are also windows in the rear and at the ends, so that there is no difficulty in having sufficient ventilation, and the sheep are not obliged to inhale an unhealthy atmosphere. Partitions or fences are made through the cellar and yard, as represented in the cut, by which a proper division of the flock is readily effected.

This barn originally consisted of several detached barns, which by removal and connection now form a very convenient whole. The general plan, however, has been improved on by some of the farmers in the vicinity; particularly by Mr. PIERCE, who has a very well-made and convenient barn on this model. One great advantage of barns with cellars, is, the facility afforded for saving all the manure, particularly the urine, which is no doubt the most valuable portion. Mr. PIERCE and Mr. TILDEN both assured us that the manure which they took from their cellars possessed about double the strength and value, as proved by its effects, to that which was exposed in the ordinary manner.

It has been objected to barns of this construction, that the hay is injured by the exhalations from the cellars, especially where sheep are kept. We are confident that this is not a necessary objection. If the floor of the barn is made tight, and the cellar is properly ventilated, we presume no bad effect is had on the hay.

Description of the Figure.—A, well with pump; B, water tubs; C, boxes for hay 4 by 6 feet, directly under a trap-door, through which hay is thrown from the mow; (this prevents the sheep running into it before feeding, and also keeps the dust and seed out of the wool.) In one section of the barn is a shearing floor, 13 by 40 ft., and wool-room 14 by 18 feet. The space 40 by 16 is a cellar for vegetables, for winter feeding. Racks are placed around the sides of each apartment.

We are indebted for the use of the cut to the publishers of "The American Shepherd," in which work it first appeared.

LABOR ACCOUNT.

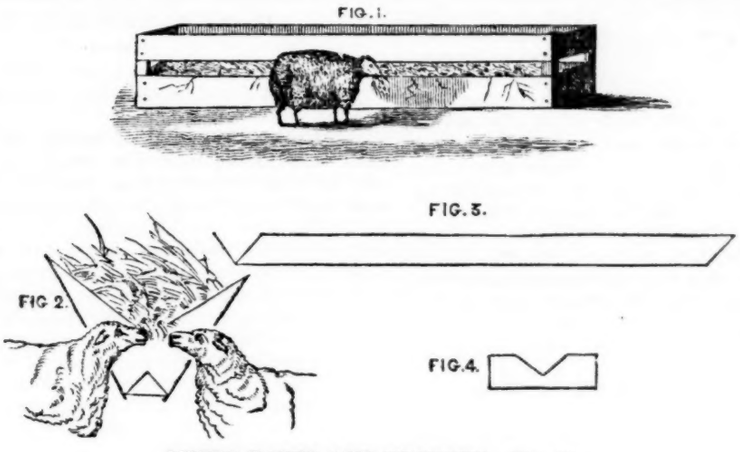
MR. EDITOR—The following is a plan of the manner in which I keep time of the amount of labor done daily by each person during haying and harvesting. I find it very convenient, more especially during rainy weather, when the hands do but part of a day's work. At night I set down the amount of labor done by each person.

1846. FIRST WEEK IN HAYING.	Monday.	Tuesday.	Wednesday	Thursday.	Friday.	Saturday.	Total No. of days' work done by each person.
July 13.	13	14	15	16	17	18	
A. B.,	1	1	⅔	1	½	1	5¼
C. D.,	1	1	1	1	1	½	5½
E. F.,		½	1	1	1	½	4
G. H.,			1	1	1	1	4
I. K.,			1	1	1	1	4
L. M.,				1	1	1	3
Second week—							
July 20.	20	21	22	23	24	25	
A. B.,	½	1	1	1	1	¾	5¼
C. D.,		1	1	1	1	½	4½
E. F.,		½	1	1	1		3½
G. H.,	1	1	1	1			4
I. K.,	1		1	1	1		4
L. M.,		1	1	1			3
Third week—							
July	27	28	29	30	31		

Wheeler, Sept. 10, 1846. O. F. MARSHALL.

Last week a case of preserved meat, taken from th wreck of the Fury, which was lost in the Frozen Ocean in Captain Parry's first voyage, about 20 years since, was opened by a gentleman at Brentwood, when it was found to be as fresh as the day it was packed, and when cooked was excellent.—*English paper.*

Plow stiff clay land in ridges, running the furrows in a direction to let off the water; the frost will make the soil friable.



SHEEP RACKS AND TROUGHS.—Fig. 95.

THE above are figures of sheep-racks and troughs, which in our opinion are the best we have seen for their respective uses. They are from "The American Shepherd," where we find the following description of them:

Figure 1 is a model of those used by the writer, [Mr. MORRELL,] for many years. They cost but little, and little waste can result from their use; and are also light, and therefore easily removed, which is sometimes necessary whether feeding is done under cover or not. Where, however, the severity of the climate compels feeding wholly under shelter, the kind designated by fig. 2, appears admirably adapted for the purpose. The writer, however, never having used any of this description, cannot speak confidently whether their superiority is greatly over the other kind, and must therefore refer the reader to the remarks concerning them of several of his correspondents.

The upright pieces or posts of figure 1 should be of pine or hemlock scantling, 2 by 3 inches, and at least 2 feet 9 inches in length. The lower boards 12 inches in width, and the upper ten inches; the spaces between them 9 inches; the width of the rack 2½ feet. The most convenient length is about 12 feet, and if thus, 6 will be required for 100 sheep of the Saxon and Merino varieties, or grades of these, when full grown.

For lambs, the width of the lower boards may be reduced two inches, the top board not any, and the space between, less about two inches, the width of the rack four inches less, and the posts shortened three inches.

From the length of the posts, an allowance, it will be seen, is made for nailing the lower boards two or three inches above the bottoms of them, which is proper. Five racks, if each is 12 feet long, will be required for 100 lambs of ordinary size. There should be no crowding when eating.

The front and upper edges of the lower boards should be planed slightly, to prevent the wool from the breasts and necks of the sheep from being rubbed off. To secure the boards permanently to the posts, spikes should be used of sufficient length to clinch. Four spikes to each side and end board are necessary.

Figure 2. The most correct idea of the construction of this is given by the cut, which represents one sawed in two crosswise. Six pieces of three by four inch scantling, and 33 inches each in length are required for a rack. The shelving boards, as seen above the heads of the sheep, are of ¾ inch stuff, and 14 inches in width, and are very necessary to prevent hay seed and chaff from falling into the necks; and further, the hay, if pulled down faster than eaten, cannot waste, as it is saved by the troughs. The front board of the troughs should be 9 inches in width; the space for the heads of the sheep 10 inches; and from the top of the space to the end of the support, 14 inches. The triangles A, A, represent the troughs. This is a double rack, but on this principle they can be made single, and placed against the sides of the shelter. They are more expensive than the kind at first described, but have decided advantages for feeding within doors, as troughs are connected.

TROUGHS.—The boards of the trough (Fig. 3,) may be of hemlock, or pine; the former, however, are not only cheapest, but hold nails more firmly. They should be 10 inches in width, one inch thick, and nailed at right angles, or, simply the edges of two nailed together. A notch must then be sawed precisely to correspond with the flare of the trough into a two-inch pine plank, a piece of which 12 inches wide and 15 inches long constitutes the proper dimensions for the end pieces, or legs of the trough. (See end piece, fig. 4.)

SHEEP ON THE SOUTHERN MOUNTAINS.

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MR. TUCKER—As a further reply to the question asked by S. B. Buckley, p. 241 of the present volume of the Cultivator,—"Whether wool-growing will succeed in North Carolina or not?" I would say that it depends entirely upon the exertions used, as I am thoroughly convinced that the country and climate is altogether favorable. The objections raised by Mr. Buckley, if they existed in all the mountain region might be considered serious; but as they can only be offered against a few very high mountains, situated in the midst of many other mountains, and far from any level or plain country, such a hiding place as he speaks of, would not be such a place as persons raised in civilized or refined society would wish to settle in. The Roan and Black mountains, were selected by Mr. Thos. Clingman, because they were the most elevated and noted mountains in Yancey Co., and not, I presume, because he thought they would afford the best pasturage for sheep; if so he was mistaken. On those mountains and in their vicinity, are the finest grazing lands for cattle; and so there is in the low marshy land of South Carolina; but neither location is favorable for sheep. I agree with Mr. Buckley, "That a large portion of the county of Yancey is an elevated table land, which is so damp and cold that the inhabitants frequently do not raise corn sufficient for their own consumption." This is partly owing to the climate; but mostly to the character of many of the inhabitants of those sparsely inhabited regions, where they too frequently depend upon the success of the chase for the largest portion of their subsistence.

But if Mr. Buckley, or any other gentleman of observation, will come sixty miles farther south,—on the line of the Blue Ridge, into Henderson and Rutherford counties, about the Tryon mountain,* which is the first that he will ascend on rising up from the level country east of the Blue Ridge, along the Howard-Gap turn-

* This mountain was named for Gov. Tryon, who held office under the British crown, about the year 1773, when Tennessee and North Carolina were one state.

pike—high on the acclivity of the Tryon he will find a bench of land which possesses a very peculiar characteristic. At night, generally, there is a pleasant breeze, and for several miles along the mountain side, there is never any dew to be found, and it is very rare that they have frost except in winter; and when the whole country above and below is covered with sleet, along this mountain side there is none. Here grows the finest native grapes that I ever saw, and the fruit crop never fails. And here is grown the heaviest wheat and rye in all the country. Here the inhabitants have the first dawn of the morning sun, and persons unaccustomed to the view, fancy that they can almost see him coming up from the watery deep. On the eastern side of this mountain is the earliest pasturage in spring, and the latest in the fall that is found in the whole range of mountains.

This location is about 46 miles E. S. E. from Ashville, and 20 miles S. S. W. from Rutherfordton. Here two of those ever persevering men from the north, called Yankees, have commenced to wall in a vineyard, and to cultivate the broom corn, for manufacturing brooms. They have the purest water that flows out of the earth; and around them are beautiful cascades more than a hundred feet high, and above them the toppling peak of the Tryon.

Thousands of persons throng this mountain region during summer to enjoy the pure bracing atmosphere, which on the eastern face of the mountain is dry and healthful; but farther back, in the mountains of the French Broad, there is much more dampness and heavy fogs; and if you still go west into Tennessee, the higher and thicker the mountains, and richer the soil, the more humid and unpleasant the atmosphere.

You may readily conclude that along the eastern slopes of these mountains, the climate and country is finely adapted to the growth of wool, as may also be seen by many of the fine flocks of native unimproved sheep, which wander here untended, regardless of wolves or dogs, their greatest enemies.

For two hundred miles along the eastern slopes of these mountains south, there are situations well suited for large flocks of sheep, and land is cheap. In many places it does not cost more than 20 cts. per acre, and very fair land may be had for 40 cents per acre.

But the stock is now being taken to make a railroad from the sea to the mountains, which will give great facility to trade and travel, and awaken new energy and enterprise in all this up-country. HENRY M. EARLE.

Pacolett, Rutherford Co., N. C., Sept. 21, 1846.

CULTIVATION OF CRANBERRIES.

MR. EDITOR—Permit me, through the Cultivator, to make some inquiries in regard to the cultivation of cranberries. I have a piece of marsh land which is covered with what I call water bushes, and is also considerably sprinkled with cranberries. I intend this fall to tear up the bushes by the roots, and if possible have the cranberries take their place. I should be glad to know—

1st. Which is the best way of getting the land well and evenly set with the cranberry plants? Should fruit or seed be sown broadcast, or plants set out?

2d. If sown broadcast, what quantity should be sown per acre, and at what time in the year should the work be done? bearing in mind that in spring the land is under water.

3d. Would it be better to give the muck a dressing of sand two or three inches in thickness, before seeding?

4th. How long will they be in coming into bearing from the seed?

5th. If plants are to be set, how far apart should they be placed? B. P. ROBBINS.

Springfield, Mass., Sept., 1846.

[We should be pleased if some of our readers who are acquainted with the culture of cranberries would answer the above inquiries.—ED.]

PLANTING NEW RESIDENCES.

EVERY man who builds a new house on a new spot of ground, at the same time that he suits his taste, suffers the serious inconvenience for some years, of a want of large shade trees and of plenty of fine fruit. He must wait till the trees can grow; but if this period may be reduced to less than one-half its usual length, most men would certainly hail the means for its accomplishment with great pleasure. If fruit trees which often stand for ten or twelve years without yielding much, can be made to produce considerable crops in five, a great object would be attained. Having had some little experience in this matter, we propose to offer a few hints.

Trees should be set out as soon as possible after the ground is selected, in order that they may be growing. But nothing is gained by transplanting them before the ground is prepared for them. We have set out trees on land which had been simply plowed and made mellow, and where manure could not be well applied and intermixed afterwards by plowing and harrowing. The consequence was, that trees of the same size at the time of transplanting, set out two years afterwards on properly prepared land, outstripped the first in three years. In all irregular planting, or where horse cultivation cannot be afterwards constantly kept up, by the arrangement of the trees in rows, the soil should be previously prepared in the very best manner, by plowing and trench-plowing, and by the thorough intermixture of manure at the same time. The ground will be better fitted for the purpose if prepared previously by the cultivation of root crops for the more thorough admixture of the applied manure; but this should not occasion delay in planting trees, as numerous harrowings will accomplish the same object very well, especially if the manure be short. Ground thus well prepared, and proper care afterwards, are far more important than setting out trees of very large size. A tree of moderate size is less checked in growth by removal, and will, as a consequence, often outstrip a larger tree, provided it receives proper care. The mode of producing immediate plantations of large trees, by removing those already six inches to a foot in diameter, first adopted on a large scale, by Henry Stuart, of Scotland, obtained considerable favor in that moist climate, though wholly unadapted to this country. But Loudon, who had great experience pledged himself to produce a fine and thrifty plantation of large trees in less time, by employing trees of moderate size, placed on deeply trenched and highly enriched soil, kept under good cultivation; several years being required to overcome the stunted and sickly appearance produced in the large trees.

Much time may be gained in bringing young fruit trees into bearing by the selection of varieties, especially of pears. There are some celebrated and excellent old pears, which usually require many years for the production of the first crop; while again there are other varieties, many of them comparatively new, which not unfrequently yield fruit before they leave the nursery row. Dearborn's Seedling, Bartlett, Amire Joannet, Indiana, Andrews, Cushing, Bloodgood, and some other fine varieties, often produce pears when but little larger than a stiff walking-cane. Peach and apple trees have often produced from half a bushel to a bushel per tree, the fourth or fifth year from transplanting, where the best cultivation had been given them. In other cases, where neglected, they have not yielded a peck in ten years.

Before concluding these remarks, we wish to urge one point, so important, that if repeated three hundred times a year, would not be too often if it would accomplish by that means the desired object. This is the thorough and constant cultivation of the soil for several years after young fruit trees are set out. If they are to stand in grass, which should be avoided if possible, a circle, *at least* six feet in diameter, (and better if ten) must be kept spaded mellow round each tree, and no grass nor weeds allowed to grow near it. The difference between neglecting trees, and keeping them in the best

state of cultivation, is almost incredible. We lately saw a large orchard of young peach trees, containing several hundred, set out in a new clover lot, and then left to themselves. The consequence was as might have been expected,—not one in twenty was alive. Any other vegetable growth without culture, as grass, grain, &c., would probably have produced the same effect. We have noticed thousands of trees very badly treated in transplanting,—mutilated in removing, —crowded into small holes, which were hastily and imperfectly filled, and every other part of the operation performed in a superficial and hurried manner,—but the deaths from *neglected after-culture*, have exceeded, threefold, all other causes put together. Remember, therefore, the importance of a constantly clean and mellow soil, if a thrifty and vigorous growth is wanted, with early of crops of fine, rich, and delicious fruit.

BREEDS OF SWINE.

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In an article in our last, in which we spoke of the Berkshire breed, of swine, we stated that two classes of hogs should be kept in the country; "one for supplying the market with meat for eating fresh, and for affording fine, delicate meat for families; the other for making heavy, fat pork for barrelling, &c." We propose now to make some further remarks in reference to the subject, and to speak of the breeds best adapted to these purposes.

In our cities and large towns, an immense amount of pork is consumed in a fresh state. For this purpose, small hogs are much better adapted than large ones. They should be small-boned, not over fat, but meaty, plump, fine-grained pigs, weighing, dressed, from forty to a hundred pounds. It is of great consequence, also, that they should be varieties which give good-flavored, or well-tasted meat. There is a vast difference in swine in this respect, though some persons through ignorance or prejudice, will not acknowledge it. We recollect having once spoken to an extensive farmer on this subject, who, with a most incredulous leer, replied—"Why, *pork* is *pork!*" He had probably never tasted any but the coarse flabby pork from such hogs as he kept himself. But there are people who know that there is a great difference in pork. We have seen that, the lean of which, when roasted, was almost as white as the breast of a turkey, and at the same time had a fineness of grain and richness of flavor not possessed by any other meat.

The breeds which are thought best suited for the fresh-meat market, are the black Essex, the black Sussex, the Suffolk, the Norfolk, the Neapolitan, and the medium-sized Berkshire, or crosses of these.

Of the black Sussex, Mr. Henry Parsons, now of Ancaster, Canada West, imported some which were kept for some time near Massillon, Ohio. They were small-boned, round-bodied stock, which matured at about a year old, and would weigh when fattened at that age, 250 to 300 lbs. When fed on dairy slop, they would weigh 200 lbs. at eight months old. Their flesh was decidedly the finest, whitest, and best flavored of any which the writer ever tasted. A cross of these and the Berkshires produced some very good stock. The Sussex were long in the rump, with closely coupled and rather arched backs, which served to improve these points which in the Berkshires were sometimes very defective.

The Essex breed seems to be closely allied to the above but have probably been more highly improved, and have a greater aptitude to fatten. We are not aware that any of this breed have been brought to this country, and the writer can only speak of them from the descriptions of others. The best are said to be quite black, with rather long, upright, thin ears. The late Lord Western was noted as a breeder of these pigs, and Mr. W. Fisher Hobbs, of Mark's Hall, Essex, has of late years carried many prizes at the shows of the Royal, and various other agricultural societies in England, for a variety called the "Improved Essex." In a late English paper we notice an account of an auction-sale of Mr. Hobbs' live stock, consisting of Hereford cattle, Leicester sheep, and Improved Essex pigs. The boars sold at ten guineas each—the sows at fifteen guineas. Portraits of several of Mr. H's prize pigs have been given in the London Farmers' Magazine.

The Neapolitan hog is also black without hair. The Rev. W. L. Rham, in his "Dictionary of the Farm," speaking of this breed, says—"No breed can excel it in aptitude to fatten. The sows often become so fat on very scanty food that they will not breed; they are extremely tender, and if they happen to have litters in the winter, it is difficult to save the young pigs from dying in cold nights. [This is applicable to England, where the weather is not near as cold as it is here.] A cross of the Neapolitan with some of our hardier breeds, greatly improves their usefulness, without injuring their aptitude to fatten." This variety has been introduced into this country, and crosses of it with some other breeds have resulted favorably. We have seen occasional crosses with the Berkshire which did well. Mr. Bement, of this city, has a stock of pigs which he calls "Medleys," the result of a cross of the Neapolitan with the Chinese, and some other sort, which appear to be well adapted to killing at an early age, and we are told by a butcher who has several times had of the stock, that the quality of their flesh is excellent.

Of the Suffolk breed, we have known of no importations to this country except those by Wm. Stickney, Esq., of Boston. We believe he has made three several importations of this variety. We have seen several of the imported ones, as well as several bred by Mr. S., at his farm in Vermont. From what we have seen, we think them not only well adapted for porkers, (or for fresh pork,) but also very well suited for ordinary family purposes, where a medium sized hog is preferred. This breed is spoken of very highly by Mr. Rham, in his work before mentioned. He says—

"Suffolk pigs are perhaps, on the whole, the most profitable breed in England. They are well shaped, short-legged, mostly white, with short upright ears, and the porkers of this breed are excellent. It may be distinguished from the Essex breed by being better covered with hair, and from the Norfolk by having smaller ears, set more nearly together. The Suffolk pig is not so delicate in constitution as the Essex, and is therefore decidedly the best poor man's pig."

The best breeds of hogs for making fat pork for barreling, so far as the knowledge of the writer extends, are the Bedford or Woburn, first brought to this country many years since from the Duke of Bedford's farm, at Woburn; the Mackay, originated by the late Capt. John Mackay, of Boston; and the variety kept at the Asylum for the Insane, at Worcester, Mass., and popularly known as the "Hospital breed."

The first named breed has formerly been quite widely disseminated over the country; but it is believed that only a few of them now remain which retain the characteristics of the originals in such a degree as to be recognized. It is doubted whether any breed ever brought into the country has been of such essential service in improving the shape and qualities of our swine generally, as this. There were several importations of them at various times, from those sent to Gen. Washington by the Duke of Bedford, in 17— to 1825, and they were sometimes known under different names; but the testimony in regard to their value was the same, from Virginia and Kentucky to Maine.

The "Hospital breed" before spoken of, is understood to have had for its basis, the Bedford breed, derived from the late Dr. O. Fiske, of Worcester, Mass., whose swine were for many years held in the highest esteem. Dr. Woodward, the superintendent of the hospital, increased their size by an admixture of some other blood, (said to have been the Mackay,) preserving at the same time the perfect symmetry of the original Bedfords. This Hospital stock, as exhibited at the Massachusetts state show, at Worcester, in 1844, we considered decidedly the most perfect for heavy barreling pork, of any we ever saw. Their dressed weights at eighteen months old, were stated to be from 400 to 500 lbs.

The Mackay breed originated by an admixture of several breeds which Capt. MACKAY, during several years, collected from various parts of the world to which his commercial intercourse led him. The writer first obtained this stock of Capt. M. in 1830, and so far as he knows, was the first to give them the name by which they shortly thereafter became generally known. We bred them for several years, and made several subsequent purchases of Capt. M. They were an excellent stock to fatten—would fat easily at any age, yet grew rapidly, and at eighteen months old reached a large size—sometimes weighing at that age 600 lbs. dressed. At the Massachusetts State show, in 1844, we saw one or two boars which exhibited the characteristics of this stock in considerable perfection. We saw, also, some good specimens of it at the farm of J. P. CUSHING, Esq., in Watertown, Mass., a few years since. But we presume it would be difficult to find many at this time, possessing much affinity with the original stock.

There are very good hogs in various sections of the country, made up of the Leicester, Cheshire, and what are called the "Grass breed;" and where pains are taken in the selection and breeding, a useful and profitable stock is produced.

It may not be amiss to say, that none of the breeds we have mentioned are recommended for a forest range, where the animal is forced to obtain a living by his own unassisted energies. They are *cultivated* breeds, and you cannot have a stock which is at the same time best adapted to a *savage* and a *civilized* state. The great disposition and tendency to fatten, for which the breeds we have named are so much valued, must give place in the "woods hog" to a habit of activity, and a tendency to muscular fibre. Instead of the thin hide and scanty bristles of the *refined* varieties, the hog which is left to provide for himself, must be clad with a covering which will protect him from the inclemencies of the weather, and shield him against the attacks of his enemies. Even in ordinary farm management, the thinness of skin and absence of hair or bristles, may be carried too far. These properties, though indicative of aptitude to fatten, and fine quality of meat, when existing in an extreme degree, impair the constitution and render the animal unfitted for any endurance.

FATTENING HOGS.

.....

IT has been demonstrated that in fattening hogs, a great saving of food is made by cooking: and we believe that a very considerable improvement in the quality of pork is likewise effected by that process. From experience, we should altogether prefer pork, either for eating fresh or for salting, that had been fattened on dairy-slops, with cooked potatoes, pumpkins, or apples, mixed while hot with a portion of meal, either of corn, rye, barley, oats and peas, or buckwheat. We know the idea is prevalent that the best pork is made from "hard corn and cold water;" some, indeed, who allow their hogs vegetables and slops during the first part of their fattening, confine them wholly to corn for a short time before they are killed, in order, as they say, to "harden" the pork. We are convinced this is erroneous. In the western part of the country, where in many cases nothing but corn is fed to hogs from the time they are able to swallow it till they are slaughtered, the pork is notoriously more *oily*, and not as well tasted as that which is made in sections where a variety of food is used.

In feeding *store* swine, the advantage of cooked food is not so obvious. The digestive organs can manage a small quantity of raw food, even though it be Indian corn, and are probably able to extract the nutriment fully from it; but if the raw food is increased beyond a certain amount, it will not be thoroughly digested. We have heard it argued that if it were necessary to restrict hogs to a short allowance, it would be best to give the food raw, because the longer time required for its digestion, kept the animals longer free from the pangs of hunger. It must be a belief similar to this, or the result of actual experience, which induces the Irish people, (according to Mr. COLMAN,) to cook their potatoes so slightly as to "leave a stone in the middle." We confess the idea is not to us unreasonable. But when it is wished to *fatten* animals it becomes an object to have them consume as great a quantity of food daily as can be perfectly digested, because the sooner they consume a given amount, the greater will be the proportion of flesh or fat accumulated. Cooking does the work, in part, of digestion, and by thus assisting the functions of the animal, enables it to dispose of a larger quantity, while at the same time, it is disposed in the manner most profitable to the feeder.

From the middle of September to the middle of November, the pumpkin is one of the best articles of food for hogs which the farmer can have. By the way, we deem the pumpkin crop one of the most *profitable* that can be grown. For the production of rich butter, we know of nothing equal to it, and it comes in just when there is usually a deficiency of grass-feed. For fully two months they may be used to excellent advantage and with but little trouble. For cows it is only required to cut them and feed them in their mangers, or break them in pieces on clean sward ground. For hogs they should be boiled in as little water as will answer to cook them, and when soft they should be mashed fine, and about one-fourth of their bulk of meal intimately mixed in. Good, ripe, sweet pumpkins, cooked in this way, with a little whey or skimmed milk, will make hogs fatten as fast as any food we have ever used.

But hogs, like other animals, require a variety of food; they will not do as well confined to one kind, however good it may be; it is best therefore, to vary their diet frequently, or to incorporate several articles into a mass, occasionally changing the relative proportions.

Hogs should be kept dry and comfortably warm, while being fattened. They should be fed in clean troughs, and the appetite should be so closely watched that no food is given them to be left from one meal to another. Nothing should be omitted which will promote their quietude, for on this greatly depends the accumulation of fat. The nervous system has such a connexion with the secretive organs, that an animal which is constantly restless cannot be fattened.

A plentiful supply of charcoal should be allowed to hogs while fattening; it is a good preventive against dyspepsia, a disease which is not confined wholly to the highest order of animals. The coal corrects the acidity of the stomach, and greatly promotes digestion.

THE AUTUMN EVENING.

.....

Behold the western evening light,
It melts in deepening gloom!
So calmly Christians sink away
Descending to the tomb.

The winds breathe low—the withering leaf
Scarce whispers from the tree!
So gently flows the parting breath
When good men cease to be.

How beautiful on all the hills
The crimson light is shed!
'Tis like the peace the Christian gives
To mourners round his bed.

How mildly on the wandering cloud
The sunset beam is cast!
'Tis like the memory left behind
When loved ones breathe their last.

And now above the dews of night
The yellow star appears!
So faith springs in the heart of those
Whose eyes are bathed in tears.

But soon the morning's happier light
Its glories shall restore;
And eyelids that are closed in death
Shall wake to close no more!

THE STRAWBERRY.

MR. TUCKER—In saying that the Elton is the same as the Methven Scarlet, I should have added, if the true kind had been sent me. Of this I have some doubt, as one of my neighbors informed me that his is staminate. In obtaining plants from nurseries, mistakes will occur. Many varieties are cultivated adjoining each other, and it is almost impossible to keep them separate.

As regards the character and habits of the strawberry plant, I wrote advisedly, not what I believe to be true, after one or two years' experience, but what I know to be true, after twenty-five years' constant attention to the subject. I wrote of the plant, not merely as it is in my garden or neighborhood, but as it will be found in all climates and in all soils. It is true that staminates will, in some seasons, soils and climates, be more productive than in others, but this does not affect the general principle. I wish my views to be fully understood, as some of our most intelligent Horticulturists now have their attention directed to the subject, and if I am in error, it will soon be made manifest. I hold that all varieties of the Pine and Scarlet strawberries, both in their native and cultivated state, never have the male and female organs perfect in all the blossoms in any large fruited variety. Indeed I know but one variety, (I believe it is the Duke of Kent,) that perfects all its fruit; and this plant is unique—most of the blossoms are perfect in both organs; but a few of them are defective in the male organs, and have to depend on their neighbors for impregnation. The fruit is small, and like most of the staminates, early. I prefer the Kent to all others as an impregnator, not only for its bearing and early maturity, but because it can, from its stem and leaf, be readily distinguished from the Hovey, and most other pistillates. I have one other staminate that I obtained from England, that has both organs perfect in a large portion of the blossoms, and is, I believe, what is called the Virginia Scarlet. The fruit is larger than the Duke of Kent, and valuable as an impregnator. But where early staminates are used, there should be a few of the Downton inserted, as it is a very late bloomer, and will impregnate the late pistillate blossoms after the Scarlet or Duke of Kent is out of bloom.

The variety I got for the Downton, bears but little fruit, many of them flat, and is a plant different in its growth from any other species or variety that I have seen, and can be easily distinguished. What is now called the Virginia Scarlet, is, I believe, staminate. There is a pistillate Virginia Scarlet, with larger fruit.

In raising from seed, in general, the number of staminate and pistillate plants are about equal; but if suffered to run even for a single season, the staminates will root out most of the pistillates. Of the staminates, by far the greater portion will be wholly defective in the female organs, and not bear a single fruit. Of the pistillates, I doubt if one will be found with the male organs sufficiently developed to produce any perfect fruit. With one staminate to ten or twelve pistillates, not one pistillate blossom will fail to bear a perfect fruit, unless crowded too close together, or killed by frost.

A plant, perfect in both organs in all the blossoms, and producing a full crop of perfect fruit, would be a prodigy; and one of that character, producing fruit of the size of Hovey's Seedling, cannot be produced. For such a plant, or one equalling the first perfect fruit of the Ross Phœnix, I will give $500. Mr. Keene, by his famous staminate seedling, made a fortune; yet I aver that his seedling and other staminates so much lauded—the Wilmot's Superb, Deptford Pine, Downton, Emperor, Swainstone Seedling, Iowa and Ross Phœnix, are of no value to cultivate for a crop, and will not, in any soil, or in any climate, in an average of years, produce perfect fruit on one half of the blossoms. I might safely say, not on one fourth. The fruit of most of them is large, and some of them of fine flavor. All the Iowas came originally from my garden.

I can readily believe that you saw a bed of the Ross Phœnix more productive than the Hovey in its vicinity. The former, as far as they could be impregnated, obtained it at home. The Hovey had to depend on the bees to bring the farina from the Ross Phœnix, and may have been too far separated to bear one-fourth of a crop. I have never seen the Ross Phœnix, or any other, equal the Hovey in size. I have seen several quarts of the Hovey, at our horticultural meetings, from the field of Mr. Jackson, varying from four and a half to five one third inches in circumference, and these raised without any thinning of the fruit, to increase the size, or even thinning out the plants. I believe my staminates named are all genuine; if not, I venture to say, if the genuine be staminate, the character I have given of them will apply. The plant never changes its character. Be it staminate or pistillate, or perfect (if such a prodigy be produced,) cultivation, soil or climate will never change its character.

I can readily understand why the Hautbois are so little cultivated, independent of the flavor of the fruit, which all do not admire. The Prolific Hautbois is said to be the only one that will bear. The Prolific is staminate, and will not perfect all its fruit. The Hautbois is a distinct species; it will not impregnate the Pines or Scarlets. There are pistillates of this class, which if planted with the Prolific, will bear abundant crops. By planting the seed of the Prolific, pistillate plants will be produced, and would be in demand.

N. LONGWORTH.

Newark, New-Jersey, Sept. 10th, 1846.

KITCHEN CHEMISTRY.—NO. IV

SOAP.

ALL fixed oils and fats, are capable of combination with caustic alkalies, in the formation of *soaps*. There are in commerce three varieties of soap; 1st, *hard white soap*, which is made of tallow with caustic soda; 2d, *hard yellow soap*, which is made from tallow, palm-oil, and resin, with caustic soda; and 3d, *soft soap*, which is a combination of some oil or fat with caustic potash. The great difference between hard and soft soap is this,—that the combinations of the fats or oils with soda, unite with water in chemical union, and form true solid *hydrates*,—in a similar way that a certain portion of water unites with quick-lime in slacking, and becomes solid; while the compounds of oils or fats with potash, merely absorb water, and hence become a gelatinous mass. Potash and soda, as usually existing, are weakened by combination with carbonic acid; to form soap this must be removed, and the alkalies rendered caustic by the addition of lime. The presence of carbonic acid may always be discovered by adding an acid or strong vinegar, when it will cause effervescence.

Hard white soap is made substantially as follows:—A solution of caustic soda, so strong that its specific gravity will be 1.05 is prepared, which has been rendered caustic by the addition of quick-lime, to take from it its carbonic acid. This solution, or soda-ley, is then made to boil, and the tallow is added in small portions at a time, until the soda is saturated, and will convert no more tallow into soap. The soap is then separated from the water by adding, gradually, common salt; the soap being insoluble in a solution of common salt, is separated and floats on the surface. A proper portion of salt must be added, so as not to deprive it of too much water, which its appearance will indicate; when it is run into wooden boxes, and cut by a wire into the forms it has in commerce. It thus usually contains from forty to fifty per cent. of water; if not over thirty, it is very hard; and if seventy, is not very soft.

Soft soap is manufactured on a large scale, by heating whale or seal oil,—with the addition of a portion of tallow to render it less liquid,—in large shallow pans, and gradually adding a strong solution of caustic potash, boiling, and continually agitating the mass, until the milkiness produced by the oil vanishes, and the whole becomes nearly transparent, and the froth subsides. It is evaporated until the operator recognizes the proper consistency, and is then rapidly cooled.

But as every good housewife makes her own soap,

directions more particularly applicable to domestic manufacture, may be most valuable.

As potash acts strongly on woody fibre, a strong thick *leach-tub*, for dissolving the ashes into ley, should be obtained; a portion of the hollow trunk of a bass-wood tree makes the best and most durable. Four barrels of ashes will usually make one barrel of good soap, and sometimes more. As all ashes become more or less weakened by a combination with the carbonic acid of the air, a layer of quick-lime must be spread after the first portion of ashes is put in, to absorb this acid from the ley as it passes downwards. Enough is not usually put in; there should be sufficient to absorb all this acid, say at least a peck to a barrel of ashes—it can do no hurt. It very often happens that entire failure results from a neglect; the house-wife finds her ley to be of full strength by means of the domestic hydrometer, a hen's egg,—but no soap is the result. A sympathising neighbor tells her that she is working in the wrong time of the moon—or that perhaps her soap is bewitched. A strong effervescence of the ley with sharp vinegar, usually tells the secret; and the application of caustic lime will not unfrequently remove the difficulty at once and restore order. The ashes should be closely beaten down in the tub, or else the water will descend too rapidly through it, and before it becomes saturated with the dissolved potash;—the only remedy in which case being to run the ley again through the ashes. The ley should always be used fresh, as it becomes weakened so much in a day or two, by exposure to the carbonic acid of the air, that soap cannot be made. In such cases, the remedy consists in adding fresh lime to render it caustic.

The fat usually employed, is the refuse grease of the kitchen, which does well; to prevent it from becoming mouldy, before use, it should be covered with weak or strong ley. When used, it is *boiled* over the fire, and small portions of ley successively added, keeping it boiling, till there are two gallons of ley to four pounds of grease. Weak ley must not be added during the process, if it becomes of less strength towards the close of the running. Let the soap boil, to evaporate, until the proper consistency is shown by adding to a portion, an equal bulk of water. If good, add to the whole its own bulk of water, stirring it well, and the process is completed. The consistency of soap is controlled by this addition of water. The best is tenacious, and not brittle, which induces waste. The corroding quality of soap is owing to the deficiency of grease.

Soap must be kept in a pine tub—a thick pine tar-barrel is good.

HINTS TO THOSE ON SMALL FARMS.

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Ed. Cultivator—Having but a few acres of land to cultivate, I have made it my study to obtain as much as possible from those few. The amount of manure I can command is small, hence I have not been permitted to accomplish this object by heavy crops from a high state of fertility. But I have been compelled to do it by a selection of crops profitable in themselves; some of which are as yet scarcely known, as farm crops, to farmers generally.

Among these, root crops hold an important place. I have formerly raised ruta bagas, and field beets largely; the former are very easily raised on light soils, costing me usually from 3 to 5 cents per bushel, according to the favorableness of the season. But to be raised thus cheaply, the land must be previously rich and well tilled, and cleared of weeds, and the young plants must be hoed before they are two inches high. The hoeing must be *finished* before they are that height. This is perfectly indispensible. Some of my richer neighbors have tried to raise them. The have selected some waste piece of ground, where a manure-yard, old stack, or demolished building formerly stood, such spots being of rich soil. But they seemed to forget that such places were also richly charged with the seeds of weeds, hence a hard job to hoe the young crop. To make the matter ten times worse, they put off the hoeing a week, when the weeds had shot up six inches or a foot high, and the labor of cleaning them became enormous; while half the amount of the crop was lost by the stunting they thus received. What was the conclusion? "Why these rooty beggys are the hardest crop I ever raised, and I shan't have nothing more to do with 'em."

Roots, raised in the cheap manner I have already described, I have found of the greatest advantage, nay, almost indispensible, in carrying my stock through winter, reducing the amount of hay needed to one-half, and requiring but little land comparatively for their production.

But useful as I have found ruta bagas, for feeding horses, store cattle, &c., I never could make them answer perfectly for milch cows; the milk and butter would have a slight taste of the turnep, alhough this was greatly diminished by feeding just after milking, and by working all the butter-milk from the butter. Hence I have adopted Carrots as the main root crop. They are hardly so productive as turneps, but their superior richness far surpasses all other roots. Horses, not very fond of ruta bagas, will often prefer carrots to oats themselves, and for feeding in company with oats and hay, they are superb. All cattle eat them with avidity; and milch cows through winter if fed on them plentifully, give the richest milk and make the best butter. The white carrot, projecting from the ground four to six inches, is very easily harvested, and is more productive than the yellow carrot; while the latter has the advantage of remaining uninjured if left in the ground till spring. Hence I raise some of each.

But the crop most neglected by farmers, and which I find the most profitable of all, is *corn*, sown *in thick drills for fodder*. This mode of raising fodder is so easy, requires so little labor, and yields so enormous a crop, that it is eminently worthy the adoption of every farmer, rich and poor, small and great, in debt and out of debt, thriving and not thriving, east, west, north, and south. Good soil is plowed, harrowed, and furrowed about two feet apart, as for potatoes; one man strews the grain from a basket along the furrow as fast as he can walk, about fifty grains to a foot, or two bushels to the acre; another follows with a common harrow, lengthwise with the furrows, or across them as is most convenient, and covers the seed. Passing the cultivator once or twice between the rows afterwards, is all the attention the crop needs. It quickly grows up, and covering the whole ground, entirely precludes the necessity of hoeing. When the crop is taken off in autumn, the ground is clean as a floor, (and they are not always clean, I am sorry to say.) Wheat may be sown after, with very great propriety, as the mere growth of herbage, (no grain being produced,) does not exhaust the soil. Hence this becomes an excellent crop for a course in rotation. The amount, (if sown thick enough, not otherwise,) is about five to seven tons to the acre, of the very best fodder, cattle eating all the stalks; and by the most liberal estimate of labor, interest on land, and cost of seed, I have never made it cost more than two dollars a ton—often not more than a dollar and a half. This crop may be sown right after the usual time of planting corn, and before hoeing commences; and may be harvested directly after the usual harvests. One load of it is worth more than two of common corn-stalk fodder. My neighbors all around are astonished at the advantages I derive from this crop, and resolve to try it themselves; but when the usual time arrives for sowing it, something prevents, or they have not land to spare, and it is neglected. Because *I* have not land to spare, is the very reason I adopt this course; for with one acre, I get as much of better fodder as is usually obtained from four or five acres of meadow.

The use of ashes, plaster, domestic poudrette, and muck, I find very beneficial, in the absence of a large supply of common manure; and the use of the subsoil plow lately commenced will, I doubt not, be very advantageous.

X. Y. Z.

ROT IN POTATOES.

.....

Mr. Tucker—From my own observation, and from the reports of others, who have themselves either dug, or commenced digging their potatoes at the present date, I have come to the conclusion that the crop, at least in this county, is a very light one, seldom exceeding, and often not reaching 90 or 100 bushels per acre. In several cases the yield has not exceeded 50 to 60 bushels per acre; indeed the price which they bring at this season, and which is nearly double what it generally is, is a good criterion to show the estimate that is put on the crop in regard to quantity. The season has certainly been in most respects, a genial one for the potato crop, and till the latter part of July and beginning of August, potatoes generally never presented a finer appearance; but at that date, for the space of about a fortnight, the fatal blight, with its fatal curl and dark deadly poison, cut off and withered the tops, rotting at the same time, many, if not the most, of the largest potatoes, the outsides and remains of which are now dug out of many of the hills. I have seen some loads which appear to have spotted or specked ones among them, that the farmers were now bringing to market, but in general I have reason to believe that there will be a good proportion of sound potatoes. My own, so far as dug, are perfectly sound, apparently, and I am inclined to think will keep. Those of my neighbors which I have seen are apparently in the same condition; our soil is mostly a loamy sand. I do not know that those grown on clay soils have any more tendency to spoil, though I have been *told* of some cases where they decayed so rapidly after being dug, that they were unfit to be used in forty-eight hours.

After reading the following facts from a late number of the (London) *Gardeners' Chronicle*, it appears that the origin of the potato disease, is as yet, like truth, at the bottom of a most unfathomable well. "We foresee," says the writer, "an inundation of theories as to the cause of the potato disease, which every one finds nimself capable of explaining, except those who have most information about it. We may therefore save the time of our readers and correspondents as well as our own, if we take this early opportunity of expressing our intention of not giving insertion to any speculations upon the subject, unless they involve new matter, and are supported by authenticated evidence.

"The following causes for the disease have already been suggested:—

1. The bad season of 1845.
2. Attacks of parasitical fungi.
3. Insects, worms (the idlest of all speculations.)
4. Frost.
5. Lightning.
6. Exhausted vitality.
7. Bad cultivation.
8. Guano and other manure.
9. Miasmata, such as produce cholera in man, and murrain in cattle.

"The last explaining an unknown cause by an unknown agency, whose mode of action in the first instance is beyond human perception, may be taken as the last and best refuge of theorists, for it is alike incapable of proof or disproof.

"Of the remainder we shall only say that they appear to us to be all untenable. Even the season of 1845, which seemed to us and so many others peculiarly suited to bring on the affection, we long ago disclaimed as a true cause; for irresistible evidence to the contrary accumulated during the winter. In fact, no theory of the potato disease will satisfy the conditions of the problem, unless it explains the following unquestionable facts:—

"1. It has for some years past been violent in St. Helena.

"2. It appeared in the year 1845 at Genoa and Lisbon, and at Grahamstown, in the Cape colony, *exclusively* in potato crops obtained from English seed, and therefore of the growth of 1844.

"3. It appeared in the year 1845 in the Bermudas, in fields cropped with potatoes obtained from the United States, and not in those which had been cropped with Bermuda sets.

"4. It has broken out in New-Holland, upon the authority of Dr. Francis Campbell, in a letter to the Sydney *Morning Herald*, dated March 18, 1846.

"5. It was little known in bog or moss land, in 1845, and now has broken out there with as much violence as elsewhere.

"6. It is accompanied by an increased excitability of the potatoes both young and old.

"7. It *invariably* begins as a brown decay of the bark of the potato stem, under ground and an inch or two above its origin from the old set. To this we have never yet found an exception; all the blotching and searing of leaves are long posterior to this.

"8. It has broken out at this moment (Aug. 12, 1846,) in crops obtained on well drained unmanured land, from sets imported from Naples, the Azores, Oporto, and New Granada, every one of which places was reported to be uninfected."

What has rendered the disease so singular in this neighborhood, was the rapidity with which the potatoes first decayed, and the sudden stop that all at once was put to its ravages. A neighbor of mine, who is a market man, was so much affrighted at the ravages that were going on in his "carters," that he dug them up as fast as he could, throwing out the affected ones, which were nearly half the crop; this was in the beginning of August; a part of the same potatoes being left till this time, are now apparently sound, though I should not deepnd on them. Rusticus.

Bethlehem, Albany Co., 1846.

SOUTH DOWN SHEEP.

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In an English paper, we find an account of the ramletting of Mr. Jonas Webb, of Babraham, in Cambridgeshire. The meeting is said to have been attended by various noblemen, agriculturists and breeders from every county in the kingdom, and among the company was our distinguished countryman, Mr. Colman. Sixty South Down Rams were let at an average of £16, or about $80, for the season. The highest priced one was hired by the Earl of Leicester for 50 guineas, or $250 the season. After the sale, about 250 noblemen, gentlemen, and agriculturists, sat down to a dinner provided by Mr. Webb. Several good speeches were made at the table, and among others, Mr. Colman was called on, who, after alluding to the happy conclusion to which the rumored war between England and the United States had been brought, said "he had witnessed with much pleasure the improvements which science and art, combined with great practical knowledge, had enabled an individual to effect in one department of agriculture. He had seen the Lincolnshire sheep, weighing 70 lbs. to the quarter; he had seen the Dorsetshire sheep giving lambs twice a year; he had seen the Cheviot sheep of Scotland, and further north, an admirable and profitable animal; he had seen the Leicester sheep staggering under their own weight, and waddling oppressed from their oppressive fatness; but, in point of symmetry, weight, quality of wool, hardiness of constitution, and general profitableness to the farmer, he had seen none which equalled Mr. Webb's South-Downs. Now-a-days, they heard much of uniting science with practice. He meant no disrespect to science when he said that science was not confined to mere mechanical rules, or mere book-knowledge. What was science—what was wisdom—but knowledge gathered from reading, from experience, from observation? And it was by the practical application of this information, that all theories must be tested. Though he honored science, he honored practice still more. He had no objection to theories, (he was indeed interested in theories,) but he preferred the results of practical experiments, and would give more for Mr. John Hudson's opinion of the use of malt in fattening cattle, than for all the theories in Christendom; and he had more respect for the opinion of Mr. Jonas Webb on improving

the breed of sheep, than for all the physiological knowledge of his most respected friend, Professor Playfair, who, being a most respectable bachelor, had probably never engaged in breeding at all."

In concluding his speech, Mr. COLMAN spoke of the kindness and hospitality he had received in England, which, he said he should long remember. He spoke also in happy terms of the relations existing between England and the United States. The two countries, he said, "were separated by a wide ocean—wide they once called it, but every day brought it nearer to them, and he believed that in six months, they would be within six days'[?] distance from each other. Why, then, should they not come home? Why should they not be drawn together? The same language was common to both—the same blood: their free institutions were from the free inspirations of liberty which first heaved in British hearts, and God grant that the two great nations of the earth might soon learn to scorn those miserable and irritating feuds which were calculated to stir up and increase the bad blood which had so long existed in the hearts of nations towards each other. He hoped the time was fast coming when the words of the noble Lord who had just retired from the Secretaryship of Foreign Affairs, might be indellibly stamped on every heart, when war should be considered as unchristian, and under all circumstances a crime."

NEW-YORK STATE AG. SOCIETY.

Report of the Committee on Stock owned out of the State, exhibited at the Auburn Meeting.

THE Committee on stock owned out of the state, would respectfully report:—

Horses and sheep were the only foreign stock exhibited.

"Gifford Morgan," a dark chestnut stallion, fourteen hands and three inches high, aged twenty years, was exhibited by Mr. F. A. Wier, of Walpole, N. H. It is claimed on the part of his owner, that this horse possesses the celebrated "Morgan" blood in greater purity than any other now living.

"General Gifford," 6 years old, got by the above named horse, was exhibited by Mr. C. Blodgett, of Chelsea, Vt. In his size, figure, action, and color, he closely resembles his sire. Both are exceedingly compact horses, deep chested, strong backed, with fore legs set wide apart, and carrying their heads (which are small, with fine, well set eyes,) high and gracefully, without a bearing rein. Their action attracted the marked admiration of all. This breed are reputed to possess great bottom and hardiness, and everything about the two presented goes to prove that their reputation in this particular, is well founded. For light carriage or buggy horses, it would be difficult to equal them, and if by crossing with prime large mares of any breed, size could be obtained in the progeny, without losing the fire and action of the Morgan, the result of the cross would be a carriage horse of very superior quality. Your committee are not aware of the extent or result of such crosses, in the region where the Morgans originated. Unless experience has already demonstrated their inutility, we would recommend to our horse breeders, some well considered experiments, limited at first, to test the feasibility of engrafting the Morgan characteristics on a larger horse.

Of SHEEP, four lots, all claiming to be thorough bred Merinos, were exhibited, as follows:—

De Witt C. Doane, of ———, Vt., twelve rams;

Messrs. Rockwell and Sandford, of Cornwall, Vt., forty-four rams;

Messrs. Bingham and Jones, of Cornwall, Vt., fifty rams;

Mr. R. V. Horton, of Hubbardton, Vt., thirty rams.

Your committee will not attempt to enter upon any detailed description of each of the several lots above enumerated. Shades of difference were observable in the quality of the lots, and between individuals of the same lot,—but all belong to the same general family, and bore the same general stamp. The fleeces of many of them were heavy, with wool of a medium quality. On most of them however, the fleece was uneven, giving coarse wool, and on the coarsest individuals, jar or hair, on the thighs, dewlap, and wrinkles. Your committee belive this a very serious objection to sheep bred for wool-growing purposes. They would recommend to the owners of the several flocks from which these were drawn, a careful effort to improve the quality and evenness of their wool, without materially diminishing the weight of fleece,—an object which observation has satisfied your committee is attainable with little difficulty.

A pen of ten Saxon ewes were presented by Mr. Samuel D. Colt, of Pittsfield, Mass. Their fleeces were even, heavy for this variety of sheep, of good fair quality, and the form and style of the sheep excellent. They possessed too, that similarity, that family resemblance, which constitutes one of the first proofs of good breeding.

Your Committee, on behalf of the Society, would tender thanks to the spirited breeders of stock from other states, who have exhibited their animals on this occasion.

HENRY S. RANDALL, Ch'n.,
JAMES M. ELLIS,
OTTO F. MARSHALL.

A PLEA FOR FRUIT.

MR. TUCKER—Every true patriot and philanthropist, must see, in the increase of rural culture and rural embellishment, something more substantial than the mere pocketing of dollars and cents. Every means of rendering a man's home attractive, also tends to promote domestic enjoyment and social virtue. The cultivation of a garden, for the useful and delicious, as well as for the beautiful, has an almost irresistible tendency to draw the mind from those grosser associations, which so often lead to dissipation and ruin. In short, there is perhaps nothing in the whole visible creation, that has a stronger tendency to check the wild and roving disposition which characterizes semi-barbarians, than refined horticultural pursuits. "When nations grow to civility and elegance," said Lord Bacon, "men come to build stately sooner than to garden finely, as if gardening were the greater perfection,"—a perfection on the prevalence of which, even our republican edifice in a great measure must owe its stability; for what foundation can endure on a moving mass of sand? What government can remain settled among a wandering people who have no attractions for home?

Downing says that "fine fruit is the most perfect union of the useful and beautiful that the earth knows." These facts being admitted, it must of course be obvious that every attempt to thwart the cultivator in the attainment of his wishes—in the enjoyment of the fruit of his labor, is gross vandalism. The man who would discourage the honest and industrious cultivator by turning unrestrained upon him the pilferer—whether that pilferer be the truant school-boy, or the overgrown loafer, the candidate for the prison—whether that pilferer be in the shape of the insect, which in whole crowds assails his fruit—or whether in the shape of birds, who remorselessly attack or defile whatever is valuable and the result of years of labor,—the man who would turn loose these marauders, and cry down every attempt to check their ravages,—has most essentially the spirit of the vandal, and has forgotten the true promptings of patriotism.

It is true, the Curculios,—who destroy, every year, millions of dollars worth of fruit, only obey the promptings of their nature, and hence are innocent of *crime*. They are, also, very beautiful animals, when viewed through a microscope; must that save them? The birds are equally innocent—they are also beautiful; must that save them? Cowper said very justly,

> "I would not enter on my list of friends,
> Though graced with polished manners and fine sense,
> Yet wanting sensibility, the man
> Who, *needless* sets his foot upon a worm."

But when need requires it, all the rest of the animal creation must bow to the wants of man. But some would alter the original law, so as to read thus: "'And have dominion over the fish of the sea, and over the fowls of the air, and over every living thing that moveth upon the earth,' except such birds as are handsome, and sing prettily—such thou shalt not touch." Every part of the creation was pronounced *good;* yet every thing equally was to be sacrificed to the wants of man when he needed it, whether for food or for protection—and the notion that mere external beauty,—such as taste or fashion may regard such,—is to shield and protect, is too much like the modern practice of acquitting handsome, rich, or well-dressed scoundrels in courts of law, for crimes committed.

These remarks, every one will doubtless understand, apply only to such birds or other animals, as render themselves decided nuisances by doing more mischief than good; and they were in part prompted by a leader in the New-England Farmer, written by a correspondent, who says that a "love of birds ought to be a part of our religion," forgetting that a moscheto, when microscopically examined, is as perfect and beautiful an animal as a bird, and equally the work of creative wisdom; who denounces as destitute of humanity, the man who does not agree with *him*, in *his* notions of beauty and music, and with *his partialities* towards certain parts of the Creator's works, all equally pronounced "good;" and who makes the following profound remark, needing no comment, "*Original sin* attaches to the poor snake; but the poor bird is only accountable for a little *actual transgression*." X.

CROSS-BREEDING OF VEGETABLES.

MANY people seem to have strange notions in regard to the "mixing," as it is called, of plants or vegetables. They suppose, for instance, that different varieties of potatoes, by being planted in the same hill, will, by some mysterious process, become so contaminated that the original kinds are not produced, but spurious mongrels, only, are generated. How this supposed mixture is produced, we have never seen any attempt to explain; and we presume those who believe in such transmutation, have themselves but vague ideas of the process.

We do not, however, by any means intend to deny that mixtures of different varieties, and sometimes different species of plants may take place; but we do contend that such mixtures can only take place in a *natural* way—that is by actual cross-breeding. The different varieties of beets may be mixed, and the different varieties of turneps, and even the different *species* of the brassica tribe—cabbages, radishes, turneps, mustard, &c.,—are susceptible of intermixture with each other *through the medium of the blossoms, and in no other way*. They might be grown in the closest contiguity forever, and if not suffered to blossom, would never mix; and we should as soon think of the bulbs of different kinds of beets or turneps mixing while growing together, as that the tubers of potatoes could be mixed in that manner. A mixture in either case would be altogether miraculous.

When plants are in flower, the pistils, or female organs, are liable to receive the pollen, or impregnating dust from the stamens, or male organs, not belonging to the same flower, or to the same variety; and when this happens, the seed so produced contains the germ of a new variety resulting from the intermixture.

Now in relation to potatoes, *the tubers are not seed*—the seed is produced in the balls, *or fruit*, on the top of the stalk, being preceded by blossoms as all other fruit is.

An example of the manner in which potatoes mix in the blossom, came under our observation in an experiment made in this vicinity by Mr. DANIEL POINEER. In 1845, he had growing in the same lot, the Mercers, Pink-Eyes, English-Whites, Long-Reds, (or Merinos,) Blue Pink-Eyes, (or Round Blues,) and a kind called Prolific Blues. From the latter he saved a quantity of balls, which last spring were planted in a bed by themselves. Some of the plants were struck with the blight, or "disease," and had their growth stopped at the time other potatoes in the lot were attacked. Otherwise they grew well, and some of the tubers attained the size of hen's eggs. On digging them, there were found to be some six or seven kinds, only one of which bore any special resemblance to the kind from which the balls had been taken, and none were exactly like any of the other kinds grown in the field; but there were Whites, Reds, Pink-Eyes, &c., all evidently new varieties; the appearance of most of them betraying their parentage, or denoting from what mixture of kinds they had originated. Another years' trial will more fully develope the qualities of the new kinds, when it may appear that some of them are of superior value.

Mixing vegetables or fruits, is commonly called *hybridizing*. The late T. A. KNIGHT, president of the London Horticultural Society, was distinguished for his success in the production of new and valuable kinds of fruits—apples, pears, and cherries—by this mode. His practice was to select flowers from two varieties which he deemed most likely by intermixture to produce the desired improvement. He then cut out with scissors, all the stamens from the blossoms which he wished to impregnate with the other variety. This was done as soon as the flower was developed, and before the pollen was formed. The flowers were then protected by thin muslin tied carefully over, till the stigma became fully dilated, and the pollen might be shaken from the stamens of other blossoms, when the covering was removed, and the pollen from flowers of the impregnating variety, well scattered over the pistils, and the covering resumed till the fruit commenced swelling. The seeds formed by flowers thus impregnated, produced trees which bore fruit showing the results of the intermixture, and which was in many instances of improved quality.

We have been informed that the SHAKERS of Niskayuna have a very choice kind of grapes, produced by cross-breeding.

CULTIVATING ROUND FRUIT TREES.

THE importance of the clean and thorough cultivation of the ground round young fruit trees, was very satisfactorily shown by an experiment the present season, on the grounds of T. G. Yeoman of Walworth, Wayne co., N. Y. A part of his young standards grew on ground occupied with field beets, a part with carrots, and the rest with young fruit trees only a few inches high, in rows about four feet apart. The latter, of course, made much less draft on the soil than the others, covering as they did but a very small part of the surface, all being kept thoroughly cultivated. The trees on this part consequently made a most vigorous growth; on the carrot ground the growth was very conspicuously diminished; while on the ground occupied by beets, the young shoots were not more than one-half the length of those first mentioned. This experiment is the more interesting from the fact that these root crops, if well hoed, as they were in the present instance, are found to be incomparably better for the trees, than the very common way of planting them in grain fields or in grass. Potatoes were not tried; but we have seen a row of peach trees growing in potato grounds, none of which had made shoots of *less* than a foot and a half, while side by side, in wheat, under circumstances otherwise precisely the same, none of the trees had grown more than three inches.

The best orchard of bearing peach trees we ever saw, was on ground kept perfectly clean and mellow by cultivation, no other crop being allowed to occupy the soil; and we have no doubt that those who own orchards of fine fruit would find it greatly to their advantage to discard every other crop on ground thus occupied, in order to keep it perfectly mellow by successive plowing and harrowing; this would certainly be the case where, as in many cases, the orchard proves more valuable than all the rest of the farm.

Flying Weevil.

Moth. *Crysalis.* *Larva*

.....

Parasitic Insect which preys on the Weevil.

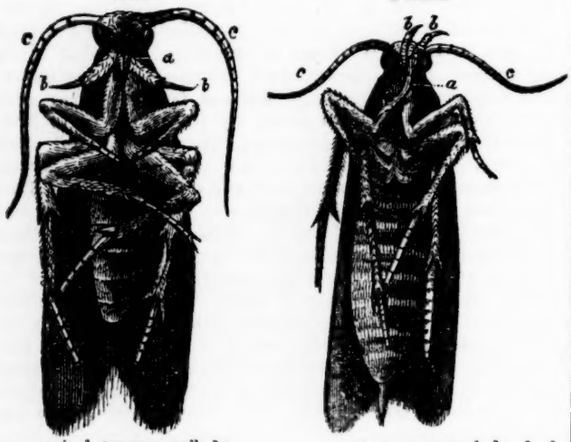
Larva. *Crysalis.* *Fly.**

* Of the order Hymenoptera, probably an Ichneumon or Sphex.

.....

Moth of Flying Weevil magnified.

Male. *Female.*



a, spiral tongue coiled; *b*, *b*, palpi unfolded, as they usually are after death; *c*, *c*, antennæ.

a, tongue uncoiled; *b*, *b*, palpi recurved: *c*, *c*, antennæ.

Parts of the Moth magnified.

Side view of the head, a portion of the wing and the fore leg, exhibiting the minute feathering.

Side view of the ovipositor, drawn out, with part of the lowest segment of the abdomen.

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Hymenopterous Fly magnified.

Head viewed from above.

b, *b*, *antennæ*; *a*, *a*, *mandibles.*

Front view of head

FLYING WEEVIL.

.....

Mr. Tucker—In accordance with your intimation, in the July number of the Cultivator, that the drawings illustrative of the Flying Weevil or Grainmoth, would be acceptable, I herewith transmit a view of the insect, in its various stages, of the natural size; and of the moth magnified. I also send a sketch of the fly which preys upon the moth; although I have been unable to give some of the magnified parts as distinctly as I should like. This arises partly from the want of a sufficiently powerful lens, and partly from the insects being imperfect. The only specimens to which I have access, at present, were given me by a friend, and have been enclosed in a small tin case, for nearly a year, along with grains of wheat. There are portions of perhaps a hundred flies thus enclosed, (nearly as many indeed as there are of weevil,) but unfortunately they are so dry and brittle, that it is difficult to find the more delicate members in a perfect state.

For this reason, and also from the minuteness of the insect, it is a puzzling affair, at least for me, to determine the genus to which it belongs, by ascertaining, positively, the form of the mouth and its appendages, of the antennæ, and of the sting. At present, from the mandibles appearing notched, and the attennæ filiform, and about ten in number, I incline to place these small flies among the *spheges*.

The Encyc. Brit., in describing one sub-division of that genus, remarks, that most of the perfect insects deposit their eggs in the bodies of other insects; and that the larvæ of these serve as food for the spheges or for their young.

On the other hand, the sting of our fly seems, in some specimens, at all events, quite visible along the abdomen, more like those of the *Ichneumonodiæ*, and not concealed, as is stated to be the case, with insects of the sphex genus.

Should I be able to obtain some specimens of the fly in good preservation, I shall endeavor to forward them to Dr. Harris or to Dr. Fitch, for their inspection.

Mr. Bolton, the intelligent owner of a steam flouring mill in this place, on reading my former communication, regarding the wheat moth, sent me the following

Additional Suggestions.

Mr. R. Owen—Dear Sir—As practical addenda to your article on the weevil, I present you my experience in saving wheat during the past year.

I received about 300 bushels of wheat, in small parcels, during the month of July; the grain was spread upon the floor of a loft, and for three or four weeks I saw no signs of danger from the weevil. By degrees, great numbers of the insects began to cover the surface, and I found the mass was becoming warmer than the surrounding air. I immediately passed the wheat through a common fan, into a bin on the ground floor. Here we examined the grains and found eggs, also small worms evidently penetrating the grain.

I was much alarmed, but determined not to give up to the enemy without a struggle. In about ten days, the temperature began to rise again; I immediately sent the wheat back to the loft, spread it out, and, in about a week after, passed it through the fan, back to the bin, where it remained without change, until I sold it 3 months ago. The millers found no fault with it; the weight 60 lbs. to the bushel.

I heard of no wheat being lost by weevil, last summer, which was threshed out early, say in July; after that I believe all suffered more or less. Some saved their wheat without any care after threshing; and all who took the pains to cool their grain before it became much heated, had the pleasure of eating good bread.

I recommend my course of management, because the means are within the reach of all those who are willing to bestow the labor.

Yours, most respectfully, SAM'L BOLTON.

Mr. Fleischmann, a highly intellectual gentleman, formerly engaged in the Patent Office, and now just returned from a visit to Europe, (a tour expressly devoted to the collection and diffusion of useful scientific information,) has brought with him a new method of preserving grain for seed, which he suggests might also probably prevent the hatching of insect eggs. A hard crust is formed round the grain, which is thereby almost hermetically covered, yet readily dissolves when in the ground, and serves, at the same time, as nourishment for the tender roots of the young plant.

I shall conclude this article, by pointing out a few typographical errors, in the printing of my former communication, [see July number Cult.,] which I mention because, in some cases, those errors entirely altered the idea intended to be conveyed. On the first column of page 209, fifteenth line from the top, "*oral*" occurs, instead of "*oval*;" again, 2d column, page 210, 37th line from below, "*correct*" is printed instead of "*incorrect*;" then on the 2d column, 29th line from the bottom, page 211, "pays his rent—a bushel—" should read "pays his *cent* a bushel" or per bushel.

Perhaps I am more particular in wishing to see this subject correct in all its details, than the matter may appear to justify; at all events, to citizens of the eastern states. But with us in the west, these insects are even now a serious evil, and (although this year found only in hundreds where they were formerly found in millions) the evil may hereafter increase, if not arrested. If, therefore, any of my suggestions should prove useful, I shall be highly gratified. RICHARD OWEN.

New-Harmony, Ia., 28th August, 1846.

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A correspondent of the *Greenville* (S. C.) *Mountaineer,* having read Mr. OWEN'S article on the Flying Weevil, in our July number, makes the following remarks in regard to protecting wheat from this insect.

"Get the wheat out at least before the 1st of August, and as soon after it is out as possible, sun it until it is perfectly dry, and put it up in hogsheads while hot as the sun in a hot day can make it, and have the vessels, into which it is to be put, fire-heated as hot as they can be made. Wheat put up this way will at least keep perfectly well one year, and perhaps several. I have a few bushels of my last year's crop now on hand, as free from weevil as when it was first put up. Whether it is the heating that destroys the weevil egg, or whether it is the drying of the wheat, I can't say, positively, but am inclined to the opinion that the drying has the principal influence, for I have seen hogsheads of wheat, after being put up in this way, left in the field with a mere covering of loose clapboards, which permitted the top of the wheat to absorb moisture, and the top of the wheat thus exposed became affected with weevil, while the wheat in the bottom or lower parts of the hogshead remained still perfectly free from their ravages. At our mill, in this village, there is a large rock, very convenient, on which I usually sun mine before putting it up, and I have frequently had flour made from wheat a year or more old as good and as fair as could be desired."

OX-TAIL SOUP.—Prior to 1685, the butchers of London, in disposing of bullock-hides to the felt-mongers, were accustomed to leave on the tails. The French refugees, however, bought them up, and introduced into use that nutritious dish called ox-tail soup.

THE DISTRICT SCHOOL HOUSE.

.....

MR. TUCKER—In one of our recent excursions, we chanced to pass through a region, which has for a long time been more than ordinarily (even for the present progressive age,) celebrated for its intelligence and agricultural enterprize. The broad and beautiful street through which we passed, was separated from the adjoining fields by substantial fences, along whose line, tall trees of rich variety were scattered in unbroken order as far as the eye could trace the windings of the graceful avenue; and their firm arms gave assurance, as they extended themselves into the nether atmosphere, that they would ere long meet their fellows and join in an umbrageous union until the whole range of their dominion should be transformed into a proud alcove with verdant canopy. The neighboring fields were arrayed in rich habiliments: the dwellings rose pleasantly from well filled parterres where fruit trees and shrubbery of all varieties beautifully blended.

There was one object in this parapharnalia of beauty and prosperity which in a particular manner attracted my attention, inasmuch as it gave more decisive evidence of a provident care for the future than any we have noticed. This was the "*district school house.*" Smile not, ye sons of affluence, who disdain to have your children mingle with the crowd around you, and who must, if they obtain an education, receive it in a more voluptuous way. Throw not aside your paper, gentle reader, nor venture the unpremeditated remark that you "wish to hear nothing on the subject of common schools." The topic, however unmanageable and unmanaged it may be in our hands, is one of vital interest to the wellbeing of succeeding generations, and the growing prosperity of our whole country. Yes, despise the humble abodes where knowledge in its most unpretending character unlocks the mind, and sheds its humblest, mildest rays, if you choose; they are the fountains of knowledge after all, where the great mass *must* come and take their earliest draughts, if they drink at all. Annihilate them, if you will, and you destroy one of the firmest pillars that support the loftiest dome of our country's glory—the intelligence of the *whole* people.

But we have digressed from the proposed subject—*that school house,* located in the midst of rural thrift and loveliness. It was the central stone in a rich inlaying of choice diamonds. Its external appearance gave assurance of comfort, and so much neatness revealed by its freshly painted white walls, erected in true gothic style, its large windows adorned and protected by light green blinds, that we felt an inclination to view its internal arrangement. Permission being granted, we went in, and found that a principle beyond outside show, had been carried out in the completion of the building. The seats and desks were arranged in a manner admirably adapted to the comfort and convenience of both teacher and scholars. The walls neatly papered, and adorned at intervals with maps and historical paintings, gave a fitter semblance of a picture-gallery, than of many of our modern school houses, with broken and smoky walls. On one side of the building stood the school library, in a neat but simple case, containing books enough on various topics to furnish the children of any neighborhood with what would once have been termed a *finished* education, after the art of reading was once acquired; and what was very agreeable, these books gave decidedly more appearance of having been *read,* than of having been carelessly handled and thrown aside. Directly opposite the library, and in a similar case with glass doors, was a small but choice collection of minerals, with which, as I was informed, the teacher was in the habit of *talking* to the whole school, in explanation of the sciences to which they relate, for a few minutes at the close of the school, once or twice in the week. What valuable funds of knowledge may thus be gathered up by the way-side, as it were, it may be an act of folly to predict!

But one thing in the external arrangement of this establishment, in our zeal for a view of the internal, has

been omitted, which is worthy of notice. It was the neat and somewhat spacious yard separating it from the public thoroughfare, and bounded on the north and west by a lovely grove of nature's own planting. This yard was well laid out in walks and adorned by trees, and shrubs, and plants, from every clime which would stand the out-door exposure of our northern winters, with beautiful flower-beds, gaily interspersed among them. These rich contributions of Sylvia and Flora, as they informed us, had been furnished in part from neighboring woods and yards, and some were the rich gift of friendly offerings, bestowed by those who, though absent, were still dear. But "*they were all planted by juvenile hands and nurtured by juvenile care.*" And there they will remain for years, perhaps for ages, the proud memorials of juvenile hours gone by, and labors well employed, to cheer and gladden each of the happy throng who, as life wears its day away, shall look upon them with emotions which will continually waft him back to the hours unknown to care, that were spent in training the gentle shoot, fit emblem of what he then was.

To say nothing of the *general* effect of fitting up a district school with such an establishment as we have noticed, there are two or three particular considerations connected with it of sufficient importance to claim a notice. In the first place, they have a tendency to facilitate the scholars in the sciences they study. Would you impress upon the mind the climate or location of any country, exhibit its mineral or botanical productions, and let them be associated *in the mind* with its geographic locality. So too of seas. What shells are found there, or what fish; and so of every thing and place.

Again, such exercises furnish the mind with an agreeable and healthful employment, and are strictly congenial to the taste of childhood. Did you ever pass by a district school-house in summer and autumn, but what you saw the corners of fences laid out in miniature fields, and fenced with miniature walls, or protected in such other way as youthful fancy dictated?" Have you never seen the turf uprooted by what childish fancy called a plow, and the tender blade of wheat or some other grain springing up in place of the green grass? Have you never seen the rude tools of the young haymaker, and the tiny stacks, which a few snatched moments, taken from study or toil, have enabled him to gather? Oh! who ever saw the operations of childhood without being convinced that the love of rural occupations was an instinctive principle of its nature, and however we may tempt ourselves or be tempted to renounce them in after years, who dares suppose but that we are led from the paths to which they invite us by artificial rather than natural causes.

To the cultivators of the soil, this love of nature, so kindly planted in every bosom, is certainly a desirable quality, and should be cultivated with care in proportion as they would succeed in threading the mazy labarynthine walks of their every day employments. Let it be cherished then in the young botanist who commences dissecting flowers and admiring their colors before he can utter his parents' name, or has power to sustain himself by his own exertion. Teach him, too, when his ear first opens to sweet sounds, and before his tongue can utter perverse sayings, that the birds whose music prompts his mirth and causes him to clap his little hands in joyful glee in chorus to their melody, that these sweet musicians of the grove were sent not only to gladden the heart of man by their pretty warbling songs, but that they are the ministers of his comfort in destroying myriads of insects which would scatter desolation in his path, and destroy his fairest hopes of plenteous harvests.

And when he makes his *debut* in the world of his fellows, and begins to act on his own responsibility on a theatre where *he must act for himself*—when he is passing through the various grades of progress which the *district school* presents, let the lessons already begun, be repeated with new emphasis, so that under their influence his mind with all its pliancy, may expand and take in new objects of kindred and higher import, until at length it shall drink in all of the sublime and beautiful that the natural world affords, or which finite mind under ordinary circumstances can grasp.

Can there be any doubt, but that in a school-room got up in the style we have quoted, where the minds of childhood and youth can relax and unbend themselves in amusements so innocent, healthful, and instructive, a generation of farmers can be educated that will love and adorn their profession? Can it be otherwise than that they should grow up *practical* and *scientific* farmers? We think not, unless conflicting circumstances are *very* strong against them, and we hope the day is not far distant when school-houses everywhere will be got up in the same neat and tasteful style, and school-children shall have their grounds to cultivate, and teachers to instruct them in taking care of them.

There is *one* powerful objection to such a state of things which may well be anticipated;—that is the expense. Yes, many a fond father who would not value an extra five dollars in a perishable dress for a son, or a dozen extra yards of pink ribbon for his daughter, to aid them in the display of perhaps only a single occasion, would think it a gross demand upon his purse to give half the amount to furnish an acre of pleasure ground, where not only his own children, but theirs and others, to all generations, might gather lessons of instruction in their hours of childish pastime; and where the honor and glory of the philanthropy which prompted the warm hearts of parental solicitude in setting apart such grounds for the benefits of the juvenile race, would speak in every leaf that fluttered in the breeze, and every flower that opened its petals to the morning dew.

There is another consideration in favor of thus getting up such establishments, which should not be omitted. The moral influence it would exert would be of a most salutary kind, and would doubtless lay a foundation for rectitude in all future years. The mind of childhood is ever active, and if it is not directed in good and honorable channels its course will be opposite; and if schoolboys can have no better employment, they will spend their time in knocking off hats, robbing bird's nests, or roaming for mischievous plunder over grounds where the restraints of integrity, and the cause of right should preclude their entrance. We need not imagine what sorrowful endings have often closed the unhallowed trains of such slight beginnings. Better remove the temptations by furnishing grounds expressly for their benefit, and employments far more congenial to their tastes, and which will not only furnish them enjoyment now, but fit them for the duties of life awaiting them.

Richmond, Mass., 1846. WM. BACON.

PRESERVATION OF THE MORGAN STOCK OF HORSES

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MR. TUCKER—I have seen some articles in your paper in relation to the "Morgan" horses, so called. I have known this stock for several years, and readily concur in most of the statements you have given in regard to their value—especially as to their powers of endurance and excellence as roadsters.

In a late journey through New Hampshire and part of Vermont, I was pleased to learn that considerable spirit is manifested in regard to the preservation of this family of horses. In the vicinity of Walpole, N. H., I found that great pains had been taken by Mr. F. A. Wier, and others, to procure mares having in the greatest degree the blood of the original Morgan horse, and some eight or ten have been collected into one neighborhood, which I was fully assured were from seven-sixteenths to half blood. Two of these mares were stated to be 29 years old, and were got by the first Morgan horse owned by Justin Morgan, of Randolph, Vt., and several others were the produce of parents got by that horse.

Mr. Wier is the owner of the excellent horse called Gifford Morgan, which had just returned from a visit to your State Fair, at Auburn, and the Fair at Troy. This horse is within a trifle of half blood of the original

horse; so that by breeding the mares spoken of to him, the blood will be kept up to about as high a point as it has ever attained in any former period. Experiments are also being made with some large and fine mares of the "Messenger" stock, which are rearing foals by this and other Morgan horses; and if these efforts are continued, I have no doubt that in a few years a stock will here be gathered which will be of great benefit to the country. S. W. G.

Boston, Oct. 14, 1846.

[NOTE.—It was stated, in our notice of the death of the *Bulrush Morgan*, in the Cultivator for June last, that he was the last of the progeny of the Justin Morgan horse; it should have been—the last of the *male* progeny, &c.—ED.]

FINE WOOL.

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MR. TUCKER—The intelligent observer of wool-growing, must have perceived during the last few months, that a "crisis" has at length arrived in this important article, long foreseen, however, by the more sagacious. It consists in the error of farmers generally, that because coarse and medium wool formerly paid a fair profit, it would always be so; hence, at length, the over-production of wool of low qualities, and consequently, low prices, that surely follow in all cases where there is a want of equability of supply and demand. But the eyes of all such are now opened to see the fallacy of their anticipations; and this being the fact, the question arises, will they shut them to what is clearly their duty for the future?

To the inert and sceptical, who are slow to believe and act, I will barely state the fact, that three sheep is the average number which can be supported on an acre the year round; and from this data, all can readily calculate the degree of profit realized from growing wool worth only from 16 to 25 cents per lb. Compared with the production of almost anything else within the farmer's range, the conclusion is inevitable, that sheep producing no finer wool are worthless; unless of the mutton varieties, the carcase of which, when well fatted, in the neighborhood of our large towns and cities, will always be in requisition, and profitable to the producer. But it is not my purpose to enter into minute details relative to the comparative profits of growing coarse, medium, and very fine wool, for my time will not at present permit me to do so; but merely to hint the subject for the reflection of all interested. To those who grow indifferent wool, I ask, when it costs no more—nay, not so much—to support a sheep whose fleece will command at the present time, 50 cents per lb., will they keep on their premises such as produce wool of the value of 20, 25, or even 30 cents per lb? The careless and unambitious probably will, but the thrifty farmer who desires an adequate compensation for his labor, will not long submit. The period for aiming to grow the *finest wool* has come, and simply for the reason, because it now is, and will continue to be, the most profitable. But more anon, when convenience will allow me to continue the subject.

My principal object now, is to call the attention of your readers interested in wool-growing, to the splendid flocks of fine-wooled sheep kept in Washington Co., Pa., and the adjoining county of Brooke, in Virginia. It is the opinion of Mr. Lawrence, of Lowell, who has had the opportunity to test the wools of that region, that the blood is of the highest order of excellence; and that several flocks will rival, in all those properties desirable for the manufacturer, some of the most noted of Saxony. No praise could be higher or more unquestionable.

Among those which claim the first attention in point of fineness, is Mr. Samuel Patterson's, of Washington county, whose flock numbers about 1,200. In order to set aside all doubt at once, I will state the fact, that Mr. P. received seventy-five cents per lb. for one hundred of his buck fleeces, (nearly all yearlings,) the present season, purchased by the Northampton Manufacturing Company; and on his authority, received about two months since, he would probably obtain 70 cents per lb., for the residue of his clip. The fleeces of his entire flock have heretofore averaged from 2¼ to 2¾ lbs.; and from the specimens I have seen of the wool of his last clip, it was most thoroughly washed; indeed, with the exception of Messrs. Perkins & Brown's wool, of Akron, Ohio, I have never seen wool so perfectly clean. His process of cleansing is the same as that of Messrs. P. & B., which they should favor the public with a knowledge of.

Within the last week, myself and brother, H. K. Morrell, have received a number of bucks purchased of Mr. Patterson, selected by samples forwarded by letter; and it affords me pleasure to state, that no disappointment has resulted from this mode of purchase. In the language of one who well knows Mr. P., "he is every inch a man," and I have all confidence in stating, that those who buy of him, may safely follow my example. The forms are very symmetrical,—the wool will sort extra and super extra—very compact, and several of them, the staple very long. The base of Mr. P.'s flock is Merino, descendants, for the most part, (as is the case with a number of flocks in his section,) of Gen. Humphrey's importation of 1802; together with choice selections from time to time, from the celebrated flock of the late Messrs. Wells & Dickinson, of Steubenville. For further and more minute information of the pedigree of his sheep, I refer your readers to the Hon. Robert G. Nicholas, of Geneva, and my friend Daniel Rogers, of Hoosic, both of whom have obtained bucks of him within the last year.

For the benefit of those who wish to communicate with Mr. Patterson, I will state that his post-office address is Patterson Mills, Washington Co., Pa.

Yours, &c., L. A. MORRELL.

Lake Ridge, N. Y., Oct. 1846.

PLANTING MOUNTAIN ASH AND CHERRY SEED, &C.

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R. H. Williams, of Westmoreland, N. Y., wishes to be informed relative to the planting of the seeds of the Mountain ash, and cherry stones, so as to secure their vegetation. He states that he planted the berries of the mountain ash in autumn, others he hung up to dry and planted in the spring, and others again he picked from the tree in spring and planted. None grew. They should have been washed from the pulp in autumn, and before becoming dry mixed with twice their bulk of sand and exposed to the weather in a continued moist state till spring. The most convenient way of doing this is to bury them in a cotton bag, after mixing with sand, just beneath the surface of the soil. Early in spring they are to be planted in a bed of the richest garden mould, not more than half an inch deep, and if the soil is not decidedly sandy, a sandy compost must be made to cover them, otherwise a crust will form by rains and drying, and prevent the young plants from pushing through. If the seeds are left in the pulp through winter, they ferment, and are killed.

The same correspondent states that he planted plum and cherry stones in autumn, but none grew. The probable cause of failure, was the drying of the stones, by too long exposure to the air. They must be planted in moist soil, or mixed with moist sand, immediately after taking from the fruit.

He also inquires the proper time and manner to trim currant bushes. Early in spring is a suitable time for pruning, but it may be done in autumn and through winter. All suckers should be prevented from growing, as by producing a thick mass of brush they lessen the size of the fruit. Old and superabundant branches are also to be thinned out. There is, however, one or two other requisites in currant culture more important than pruning. These are to renew the bushes by planting new ones, after the old ones become seven or eight years old; and to give them a rich soil, and deep, mellow, and constant culture. By these means, the fruit will be more than triple the size of that grown on old unpruned bushes, growing neglected in grass and weeds.

RENSSELAER CO. AG. SOCIETY.

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We had the pleasure of attending the exhibition of this society, which took place at Troy on the 23d and 24th days of September. Considered in all respects, we have seldom seen the exhibition equalled by any county society. The animals were numerous, and in many instances of marked excellence. The mechanical department—including farm implements, carriages of almost every description, stoves of all patterns and for all purposes, cabinet ware, manufactures of leather, &c., was highly attractive and creditable, both for extent and quality. The household products, and ladies' department, presented a very rich and varied display, which would have done honor to any association.

There was a good display of fruits and flowers. We noticed specimens of very fine pears from Elwanger & Barry, Rochester, and also several fine kinds from H. Wendell, Esq., Albany; also apples, pears, and enormous quinces, from H. Burden, Troy; beautiful samples of the Isabella, Catawba, Winne, and White sweetwater grapes, from Messrs. Hart and others, of Troy. A. Walsh, Esq., Lansingburgh, presented *pea-nuts*, the growth of his garden.

The cattle were very numerous, and among them were some really fine animals. From the herd of Geo. Vail, Esq., we noticed a lot, consisting mostly of cows and heifers, the greater portion of which were only presented for exhibition. Among them was his fine imported Durham cow, Lady Barrington, which received the first premium at the late State Fair. We observed, also, a fine Durham cow owned by Mr. Jos. Haswell, of Hoosick, and one which we understood to be owned by Mr. Willard, of Troy. These cows, we are informed, were bred by Judge Ball, of Hoosick. They would certainly do credit to any breeder. There was a very good Durham bull presented by Wm. Hall, Troy.

Among the fat cattle we noticed two yoke of very heavy oxen, owned by A. Pine, Pittstown; another yoke owned by Augustus Lester, Troy.

The show of swine was particularly good. We observed some excellent pigs of the Berkshire and Grass breeds, owned by Mr. Willard, of Troy; a very fine young boar of similar blood, owned by J. B. Ford, Troy; a Berkshire sow and litter of pigs, owned by Isaac Tallmadge, Schaghticoke; two litters of very superior pigs, Berkshire and Leicester breeds, owned by D. S. Greene, of Brunswick.

Of sheep we noticed good specimens of the mutton breeds, owned by W. Younghans, Brunswick, L. Brownell, Pittstown, and J. Minnick, of Sand-Lake; and specimens of fine wooled sheep, (Merinos and Saxons) from Messrs. Haswell, of Hoosick, Tallmadge, of Schaghticoke, and Brown, of Pittstown. There was shown a fleece of very fine wool, said to be worth "one dollar per lb." by John Kerr & Co., Troy.

In horses the show may be said to have been uncommonly good. The competitors were numerous, and there were several fine animals which were only for exhibition. We noticed a yearling colt of remarkable size and points, got by Mr. Long's Sir Henry; a handsome black stallion owned by Jno. M. Fonda, Troy; several pair of fine matched horses, especially, a pair belonging to Mr. Van Arnum, of Troy, and others, whose owners' names we did not learn.

Among the horses for exhibition only, was the Gifford Morgan, 20 years old, owned by Frederick A. Wier, of Walpole, New Hampshire. He attracted the same marked attention here that he did at the State Show.

Mr. Calvin Morse, of Lansingburgh, presented his horse called "Norman, or Morse's Grey," (which has heretofore received the first premium of this society,) with 14 of his progeny, exclusive of several young foals. We gave a cut of this horse in our No. for May last. There is no doubt that his stock make valuable horses. It would be difficult to find the same number from any one horse of equal merit with the fourteen we have mentioned. They appear to be hardy, good tempered, strong constitutioned animals, well calculated for the road, and many of them showing extraordinary traveling powers. We noticed particularly (among the lot of fourteen) a very superior young gelding, owned by H. H. Steenburg, of Troy, which received the first premium, and which as as a traveller it would be "hard to beat."

C. T. Botts, Esq., of Richmond, Va., editor of the *Southern Planter*, saw Mr. Morse's horse last spring, and afterwards made some remarks in reference to him, from which we make the following extracts. Mr. B. rode several miles in a buggy drawn by this horse. "His action, (and as Demosthenes said of the orator, action is everything,) is superb. What an acquisition this horse would be to the stock of Virginia! We have a great many thin, slab-sided, thorough-bred mares; what there is of them is good, and what they can do they will do all the time, but they want strength and filling up in the flank and loin, and we have never seen a horse better adapted to cross upon them than this dapple grey of Mr. Morse's." He pronounced him besides, "the finest and safest sulky or buggy horse it was ever his fortune to sit behind."

TEN VARIETIES OF STRAWBERRIES.

.....

DESCRIBED BY WM. R. PRINCE, OF FLUSHING.

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Crimson Cone is an exceedingly vigorous variety, with very tall petioles and large foliage; flowers staminate; fruit in profuse trusses on long peduncles, the berries brilliant dark scarlet, highly fragrant, remarkably beautiful, and striking beyond any of the usual varieties; the seeds very deeply imbedded, ripens with the later varieties, at the same period as the Hovey, Hudson, and Methven. At market this variety commands the very highest price. Indeed, the fruit is so beautiful and showy, and the crops so abundant, that it may be deemed one of the most desirable of the whole family.

Primordian is a new very early variety, of vigorous habit, the flowers pistillate, the berries crimson, larger than the large early scarlet, of conical form, ripening about the same period as that variety. It is exceedingly productive, the fruit in profuse clusters, of a fine color, and very showy. It may be deemed the most prolific and estimable of all the early varieties for the markets, or for small gardens.

Crimson Pine is a new variety with large vigorous foliage, flowers staminate, berries large dark red, but not of the deepest color, conical pointed form, but some are obtuse or rounded at the extremity, of fine flavor, and rather early; it assimilates in growth and appearance to the Hudson's Bay.

Unique, a vigorous new seedling variety, originated by ourselves, in 1845; the flowers staminate; the fruit scarlet, of most peculiar form, being purse-shaped, with a short neck, sweet and delicate; it is very prolific, and much esteemed by those who have tasted the fruit.

Bishop's Seedling, of the London Hort. Society, is a very healthy rapid growing plant; the petioles are long, but not as strong, nor the foliage as large as some of the most robust varieties; the flowers are pistillate; the fruit of medium size; roundish ovate form, a beautiful orange scarlet color, firm, and of a rich acid flavor; it is borne on long peduncles in very profuse clusters, and when the foliage is pressed aside, the bed seems literally covered with fruit; it is one of the latest at maturity, and a very hardy variety.

Montevideo Pine is a vigorous plant, and the largest in its dimensions of all the varieties that I have seen; the petioles strong and downy, leaves broad, peduncles large, and the flowers the size of a dollar, and staminate; the fruit is the largest average size of all the varieties, of perfect regular conical form, rich scarlet, remarkably showy and splendid. The berries continue ripening in succession for 3 to 4 weeks, from the middle of June to the middle of July, it being one of the latest of either the Pine or Scarlet classes.

Hudson, (of Cincinnati,) is of vigorous growth and luxuriant foliage, and rapidly covers a bed with its runners; the flowers pistillate, the berries ovate-pointed, without a neck, of the same color and nearly the same form as our common Hudson, and of good flavor. It is remarkably productive, and perhaps only equalled by our Hudson, and by the Crimson Cone, Bishop's Seedling, and a few others, and is a very desirable variety for supplying the markets. This plant greatly resembles in its growth and general appearance our ordinary Hudson strawberry, and is no doubt closely allied to it.

Hudson, or Hudson's Bay, is an old variety that has for a long period been extensively grown for the New-York markets. It is of very vigorous growth, and is one of the few garden varieties that combine distinct staminate and pistillate plants, and it was this variety which the late Wm. Prince was in the habit of planting more than thirty years ago, in beds composed of one of the former to ten of the latter sex, which course was urged upon cultivators in the short treatise on Horticulture published in 1828. The wisdom of that suggestion has at this late day become fully proven, by its general adoption throughout the whole family of strawberries, wherever the organs are unsexual or abortive without the fertilization by a proximate variety of the proper character. The fruit is large, approaching to ovate, and pointed, with a neck, often hollow with a core, and when fully ripe is of a dark, rich, shining red, the flesh pale scarlet, firm, and well suited for carriage, and only tolerable, with much acidity before fully ripe, but at perfect maturity it is sweet and well flavored, and especially so in a hot season. The point of the berry remains green until the other portion has reddened, but becomes red when mature, by which the proper period for gathering it can be ascertained. This variety has been condemned in England, because that humid climate is inappropriate to perfecting its maturity, and by others in this country who have eaten it in an immature state. It requires our powerful sun to perfect it, and although it must be ranked among the coarser varieties, it is nevertheless of a very good quality when eaten in a perfectly ripe state, having then only a slight acidity, which renders it pleasant in a sugared state. The fruit is very showy, and one of the best for preserves.

Green Strawberry, is allied to the Hautbois family more than to any other, but appears to be of entirely distinct origin. It is readily distinguished by its peculiar foliage, which is of a varied green hue, more delicate, and less rugose than the Hautbois class; the flowers are perfect; the fruit is roundish flattened, of medium size, and some berries small, whitish green tinged with reddish brown over two-thirds of its surface at its full maturity; flesh solid, pale greenish, of a pleasant and most peculiar musk flavor. The berries are on very flexile peduncles, and when ripe, unlike the Hautbois varieties, they are entirely concealed by the foliage. It is the latest of all except the Alpines.

Buist's Prize is a new seedling variety; the flowers staminate, and each section of the calyx has three segments; berries large and closely resembling the drawing issued by Mr. B.; its greatest diameter being at the centre, and terminating in a sharp point; it is of good flavor, ripening about the medium period.

WATERING GARDEN PLANTS.

THE past season has been remarkable for its heat and moisture, and has consequently greatly favored the growth of plants. Yet the importance of a copious watering has been very strikingly shown by a row of Red Antwerp Raspberry, a part of the row standing on manured land in open ground, and a part under the eaves of a woodhouse and on its northwest side. The shoots of those in open ground have grown this year about four feet; a small part have grown five feet. Those under the eaves of the wood house have grown from seven and a half to eight feet, and are much more numerous.

This experiment shows the importance of attention to some efficient system of irrigating gardens.

VERMONT AGRICULTURAL SOCIETIES.

IN none of the states of the Union, is there manifested a more general and energetic spirit of improvement in every branch of rural economy, than in Vermont. The zeal with which agricultural societies, which are organized in almost every county, are there sustained, is evidence of the advancement which the good cause is there making. We have already received several accounts of the exhibitions which have been held in various parts of the state, the present fall, of which we give herewith, a brief abstract.

The Chittenden Co. Society held its exhibition at Burlington, on the 24th September. The stock, particularly the neat cattle and horses, were said to be greatly superior in excellence and beauty to those of any previous exhibition. The horticultural department was also well filled. Fine specimens of grapes, melons, and other fruits were shown. Of domestic manufactures, there was a large and good display.

The Rutland County Society held their show at Castleton, on the 24th September. Every department appears to have been well filled, and the interest felt by the citizens in the labors of the Society, was evinced by the numbers which assembled on the occasion—it being, as stated, "by far the greatest gathering ever witnessed in Rutland County."

The Addison County Society held its exhibition at Middlebury, on the 30th September. The *Galaxy*, in reference to the show, says "no agricultural fair has come off more to the satisfaction of those in attendance." The show of sheep is said to have been the best ever made in the county. The show of neat cattle is also spoken of as having been fine, and the display of horses indicated an evident improvement in this valuable description of stock. The in-door departments, manufactures, fruits, &c., are highly spoken of.

The Caledonia County Society's exhibition, we have not received an account of. This spirited society ordered seventy-five copies of the Cultivator for distribution as premiums and gratuities.

The Windham County society held its exhibition at Brattleboro, on the 7th and 8th of October. The meeting is spoken of as having been one of great interest. According to the *Phœnix*, published at Brattleboro, it was a superior exhibition to any before holden in that county, and was attended by a very large crowd of "citizen-farmers, with their wives and daughters." The meeting is said to have been "characterized by great harmony of feeling, and increased zeal in the great cause of agriculture."

IMPROVED STOCK IN ENGLAND.

Mr. WM. FISHER HOBBS, of Mark's Hall, Essex, lately disposed of the greater portion of his live stock, consisting of Hereford cattle, Leicester sheep, and improved Essex pigs, by a sale at auction. The cows averaged 25 guineas, bull calves 11¼ guineas. The Leicester rams brought 7¼ guineas per head, ewes 48 shillings (sterling) per head. Lambs, a cross of the Leicester and South Down, 31 shillings per head. Of swine, the boars brought 10 guineas, the sows 15 guineas each.

A part of the herd of Short Horn cattle, formerly belonging to the late Earl SPENCER, and by him willed to Mr. HALL, his bailiff, has been lately sold. Some of them brought very high prices; a yearling bull sold for 370 guineas, and his dam for 132 guineas. A bull calf was sold to the agent of the French government for 225 guineas. The celebrated Short-Horn bull "Capt. Shafto," formerly owned by Mr. LOFT, has lately been bought by Mr. PARKINSON, for 325 guineas.

We find in another paper an account of the annual sale and letting of rams of the improved Cotswold breed, by Mr. HEWER, of North Leach, Gloucestershire. Mr. H. has been known as a sheep-breeder for upwards of twenty years, and the stock offered on this occasion are stated to have been equal in quality to any he had ever produced. There were four sheep offered for letting,

and one of those, a shearling, made 41 guineas. There were also 41 sold; the average of the whole 45 amounting to 15*l.* 12s. 8d. per head.

It seems to be the opinion of many in England, that for weight and value of fleece, early maturity, and quantity and quality of meat, combined, no breed is more profitable than this.

One of the plates of the *Farmers Magazine* for September, represents three beautiful Leicester rams bred by Mr. ROBERT SMITH, of Burley-on-the-Hill, Rutland. The drawings appear to have been taken just after the sheep were shorn, and therefore exhibit their true form, undisguised by wool. One of the three whose portraits are given was sold to Mr. BENNETT, of Bedfordshire, for £120. The three engraved portraits were taken from a group of seven which had been painted for Mr. SMITH, which sold, in the aggregate, for 700 guineas. Sixty of his rams sold in September, 1845, at an average of 19 guineas each. Mr. S., it is stated, has received at least 50 premiums by this flock, from various agricultural meetings.

LIST OF PREMIUMS,

Awarded at the N. Y State Fair, Auburn, Sept., 1846.

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[Concluded from our last.]

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BUTTER.

Greatest quantity made from five cows in 30 days—1st, E. R. Evans, Marcy, $25; 2d, A. C. Crocker, Union, $15.

Best 25 pounds made in June—1st, Joseph Baker, Otisco, $10; 2d, Wm. Ottley, Phelps, Col. Tour; 3d, Elisha Sheldon, Homer, Vol. Trans.

Best 50 pounds made at any one time—1st, Joseph Baker, $15; 2d, A. C. Crocker, Col. Tour; 3d, Abram Adams, Preble, Silver Medal; 4th, Elisha Sheldon, Homer, Diploma; 5th, John G. Wheeler, Sennett, Vol. Trans.

CHEESE.

Best 100 lbs. one year old and over.—1st and 2d, no awards; 3d, Robert Eells, Oneida Co., Silver Medal; 4th, Wm. Ottley, Ontario Co., Diploma; 5th, H. N. Washbon, Otsego Co., Vol. Trans.

Best less than one year old.—1st, no awards; 2d, Robert Eells, Col. Tour; 3d, Wm. Ottley, Silver Medal; 4th, Isaac Bucklin, Cayuga Co., Diploma; 5th, Anthony Shaw, Scipio, Vol. Trans.

SUGAR.

Best Maple.—1st. Benj. Gauss, Jr., E. Bloomfield, $10; 2d, Moses Eames, Rutland, $5; 3d, Erastus Bigelow, Sangerfield, Diploma; 4th, U. E. Talman, Tully, Vol. Trans.

SILKS.

Manufactured.—Clark Avery, Perryville, $15.

Sewing Silk.—1st, Clark Avery, $10; 2d, Joseph Belcher, $5; 3d, David Irish, Diploma; 4th, N. M. Coburn, Vol. Trans.

Reeled Silk.—1st, Joseph Belcher, $5; 2d, N. M. Coburn, Diploma; 3d, David Irish, Vol. Trans.

Cocoons.—1st, N. M. Coburn, $10; 2d, Jos. Belcher, Col. Tour.

DOMESTIC MANUFACTURES.

Woolen Blankets.—1st, Wm. Ottley, Phelps, $5; 2d, F. P. Brown, Elbridge, $4; 3d, Geo. W. Henry, Martinsburgh, $3.

Flannels.—Albert L. White, $5; 2d, Clark Avery, $4; 3d, Wm. Ottley, $3.

Woolen Cloths.—1st, M. W. Priest, Little Falls, $5; 2d and 3d, O. Kellogg, Skaneateles, $4, and $3.

Woolen Carpets.—1st, Jonathan Conger, Groton, $5; 2d, No. 474, owner unknown to the committee, $4; 3d, D. C. Monroe, Elbridge, $3.

Tow Cloth.—A. Shaw, Scipio, $3.

Linen.—1st, A. Pine, Pittstown, $5; 2d, F. P. Brown, Elbridge, $4; 3d, E. W. Bateman, Venice, $3.

Linen Diaper.—1st, A. Pine, Pittstown, $5; 2d, Margaret Jeffery, Truxton, $4; 3d, Geo. W. Henry, Martinsburgh, $3.

Linen Thread.—R. S. Ransom, Perryville, $2.

Hearth Rugs.—1st, Hotchkiss & Smith, Auburn, $5; 2d, J. Barber, Auburn, $4; 3d, Miss A. R. Smith, Vernon, $3.

Double Coverlets.—1st, Caroline C. Jones, Westmoreland, $4; 2d, C. R. Nichols, Darien, $3; 3d, C. Britt, Perryville, $2; 4th, J. Conger, Groton, Vol. Trans.

Woolen Stockings.—1st, Margaret Jeffrey, Truxton, $2; 2d, Mrs. Greenleaf, Watertown, Vol. Trans.; 3d, David Thomas, Aurora, Diploma.

Wove Woolen Stockings.—Miss L. C. Morris, Auburn, $2.

Kersey.—1st, C. Britt, Perryville, $3; 2d, R. S. Ransom, $2; 3d, A. Pine, Pittstown, Vol. Trans.

Linen Knit Stockings.—1st, Chester Gridley, Sennett, $2; 2d, E. W. Bateman, Venice, Vol. Trans.; 3d, J. L. Eastman, Lodi, Diploma.

Knit Cotton Stockings.—1st, 2d, and 3d, L. C. Morris, Auburn, $2, Vol. Trans., and Diploma.

Bed Quilts.—1st, Rebecca Johnson, Syracuse, $5; 2d, L. C. Morris, Auburn, $3; 3d, B. F. Hawks, Phelps, $3.

Rag Carpets.—1st, Wm. Ramsey, Elbridge, $3, 2d, Geo. Hawley, Auburn, $2; 3d, Abram Adams, Preble, Vol. Trans; 4th, Jonathan Paddock, Aurelius, Vol. Trans.

FRUIT.

Table Apples.—1st, Benj. Hodge, Buffalo, $5; 2d, A. Bryant & Son, Buffalo, $3; 3d, C. Parvis, Greece, Vol. Trans.

Best twelve sorts.—J. C. Hastings, Clinton, $3.

Seedling Apple.—Isaac Hildreth, Geneva, $3.

Table Pears.—1st, Elwanger & Barry, Rochester, $3; 2d, Benj. Hodge, Buffalo, Vol. Trans.

Winter Pears.—Elwanger & Barry, Rochester, Vol. Trans.

Quinces.—Geo. Underwood, Auburn, Vol. Trans.

Native Grapes.—Edward Thomas, Geneva, Vol. Tr.

Foreign Grapes.—Chester Parsons, Skaneateles, Vol. Trans.

Best Peaches.—Bissell & Hooker, Rochester, Vol. Trans.

Plums.—G. F. Pratt, Buffalo, Vol. Trans.

FLOWERS.

1st, James Wilson, Albany, Silver Medal; 2d, Prof. J. W. Jackson, Schenectady, Diploma; 3d, Elwanger & Barry, Rochester, Vol. Trans.

Seedling Dahlias.—1st and 2d, Edward Thomas, Geneva, two Diplomas.

Best twenty-five varieties of Dahlias.—1st, James Wilson, Albany, Silver Medal; 2d, Elwanger & Barry, Rochester, Diploma; 3d, Prof. Jackson, Schenectady, Vol. Trans.

Best Floral Ornament.—James Wilson, Albany, Silver Medal.

Bouquets.—1st, James Wilson, Albany, Col. Tour; 2nd and 3d, L. Menand, Albany, Diploma and Vol. Trans.

Green-House Plants.—1st, Mrs. M. Miller, Auburn, Diploma; 2d, Miss H. C. Morse, Skaneateles, Vol. Trans.

German Asters.—Prof. Jackson, Schenectady, Vol. Trans.

Best twelve Roses.—1st, James Wilson, Albany, Diploma; 2d, Elwanger & Barry, Rochester, Vol. Trans.

Discretionary Premiums for Floral Ornaments.—Diplomas were awarded to Mrs. E. T. Throop Martin, Willow Brook; Elihu Tyler, Buffalo; Elwanger & Barry, Rochester; Prof. Coppock, Buffalo; Wm. Webb, Buffalo; Benj. Hodge, Buffalo; Henry Morgan, Aurora.

VEGETABLES.

Water-Melons.—H. N. Langworthy, Rochester, Col. Tour.

Musk-Melons.—Geo. Cooper, Irondequoit, Vol. Trans.

White Carrots.—C. F. Crossman, Rochester, Vol. Trans.

Field Carrots.—J. H. Osborn, Mentz, Vol. Trans.

Beets, (long blood.)—C. F. Crossman, Rochester, Vol. Trans.

White Parsneps, White Table Parsneps, and Cabbages.—Geo. Cooper, Irondequoit, three Vols. Trans.

Tomatoes and Egg-Plant.—C. F. Crossman, Rochester, two Vols. Trans.

Sweet Potatoes.—H. G. Dickinson, Vol. Trans.

Lima Beans.—Ira Hopkins, Auburn, Vol. Trans.

Parsley.—Geo. Cooper, Irondequoit, Vol. Trans.

Squashes.—H. G. Dickinson, (one weighing 80 lbs,) Vol. Trans.; Hiram Hubbard, Canandaigua, (Six from one seed, weighing 575 lbs., and one of which, 146¾ lbs.,) Vol. Trans.

Pumpkins.—C. Moses, Skaneateles, Vol. Trans.

Seed Corn.—Chester Gridley, Sennett, Vol. Trans; John Thompson, Ledyard, Vol. Trans; J. F. Osborn, Mentz, Vol. Trans.

Mangel Wurzel.—James Rattle, Sennett, Vol. Trans.

Sugar Beets.—J. F. Osborn, Mentz, Vol. Trans.

Discretionary Premium—For beets, carrots, and millet, Thos Ogden, Vol. Trans.

Discretionary Premium—For sweet corn and red peppers, A. Custin, Vol. Trans.

Best Table Potatoes.—C. R. Nichols, for Mercers, $2; C. F. Crossman, for Long Pink-Eyes, Vol. Trans.; J. F. Osborn, for Long Pink Eyes, Vol. Tr.

Seedling Potatoes.—N. S. Smith, Buffalo, for Pink Eyes, $5; the same for four varieties, Col. Tour.

WHEAT.

R. Harmon, Wheatland, (three varieties,) Vol. Trans.; Martin Smith, White Flint, $5.

BEE HIVES.

Aaron Colton, Pittsfield, Vermont, $5; Wm. R. Kelsey, Starkey, N. Y., Vol. Trans.

STOVES, &c.

For Cooking.—1st, Jackson & Phelps, Syracuse, (Buck, No. 8,) for Hotels, Diploma; 2d, D. E. Stafford, (Telegraph,) Silver Medal; 3d, Anthony Davy & Co., Troy, (Washington Air-Tight,) six sizes, Diploma.

Parlor Air-Tight.—1st, Atwood, Cole & Crane, Troy, Silver Medal; 2d, Wager & Dater, Diploma; 3d, J. S. & M. Peckham, Diploma.

Stove Hollow Ware.— —— Hoag, Schenectady, (5 pieces,) Vol. Trans.

IMPLEMENTS AND MACHINERY.

Reaping Machine.—C. H. McCormick, Rockbridge Co., Virginia, $5.

Stump Machine.—R. H. Hall, Owego, $10.

Grain Planter and Sowing Machine.—P. Seymour, E. Bloomfield, $5.

Sowing Machine.—W. H. Jones, Bridgeport, Ct., Diploma.

Flax-Pulling Machine.—H. Hill, Diploma.

Bells.—A. J. Meneely, West Troy, Diploma.

Door-Lock and Bell-Pulls.—Dana & Price, Utica, $5.

Rockaway Buggies.—Allen & Carpenter, James Gould & Co., Albany, Diplomas.

Double Acting Force Pump.—Phelps & Messenger, Oneida, $3; H. G. Madison, Syracuse, Diploma.

Fire Engine.—Calvin Young, (16 yrs old,) Auburn, $5.

Balance Slide Farm Gate.—H. White, Kirkland, $3; S. Benham, Camillus, Diploma.

Portable Bedstead.—James Hazlett, Utica, $3.

Refrigerator, and Shower Bath.—E. Taylor, Rochester, $5.

Horse-Yoke.—E. H. Danforth, Busti, $3.

Leather Dressing Machine.—S. Wilson, Dansville, $3.

Imitation Graining.—F. Van Doorn, Rochester, $3.

Smut Machine.—Wilson & McCullough, Syracuse, Diploma.

Buckwheat Cleaner.—Daniel Pease, Jr., Diploma.

Mill for Sawing Siding.—Nelson Peck, Lyons, Diploma.

Portable Grist Mill.—J. H. Bristol, (Fitzgerald's patent,) Diploma.

Hay Scales.—J. F. Keeler, Cazenovia, $5.

Ox-Yoke.—E. Sheldon, Sennett, Diploma.

Rock Drilling Machine.—Richard Dibble, Rochester, Diploma.

Buggy-Wagons and Chariotees.—John W. Bates, Utica, Diploma.

Wagon-wheel.—J. C. Royce, Cuylerville, Diploma.

Compound Carriage Wheel.—Norman Reede, Onondaga, $3.

Self-Acting Cheese Press.—W. C. Pratt, Weedsport, Diploma.

Seraphines.—Upton & Miller, Rochester, Diploma.

Whips.—W. R. Strong, Rochester, Diploma.

Sofa and Card-Tables.—Chas. Rust & Son, Syracuse, Diploma.

Portable Hunting and Fishing Case.—Wm. Gardner, Geneva, Diploma.

Stove Pattern Carving.—J. F. Seymour, Utica, Diploma.

Boot Crimping Machine.—J. H. Ladue, Cato, $3.

Mustard, and Paste Blacking.—D. Murdock & Co., Albany, Diploma.

Saddlery and Hardware.—Hasson Frazier, Syracuse, $3.

Harness and Bridles—P. Williamson, Skaneateles, Diploma; F. A. Keeler, Albany, Diploma; C. H. Wheaton, Homer, Diploma.

Butter Firkins.—Abram Sherman, Summer Hill, $2.

Model Steam Engine.—D. D. R. Ormsby, Homer, Diploma.

Card Printing Press.—F. A. Marsh, Diploma.

Hand-Power Planing Machine.—Andrew Parker, Auburn, Diploma.

Morticing Machine.—Benj. H. Otis, Syracuse, Diploma.

Revolving Bellows.—Jerome Darling, Adrian, Mich., Diploma.

Drill Sawing Machine.—Pennock & Pierce, Chester Co., Pa., Diploma.

Sculpture in Wood.—J. Sangster, (14 yrs. old,) $5.

Sash Lock.—James Jones, Rochester, Diploma.

PAINTINGS AND DRAWINGS.

W. M. Beauchamp, Jr. Skaneateles, Diploma; Miss Cox, for Pencil Drawing Diploma; Miss Conkling, for Crayon Pencil Drawing, Diploma.

MISCELLANEOUS FANCY ARTICLES.

Shell Work.—Miss L. C. Morris, Auburn, $3.

Wax Work.—Miss L. C. Morris, $5, and Diploma; Mary F. Snow, $3.

Needle Work.—Fire Screens.—Delia M. Colvin, Syracuse, $5; Lydia S. Russell, $5.

Ottoman Covers.—Delia M. Colvin, $3; F. E. Thornton, Fleming, $3; Mrs. N. M. Stephens, Elbridge, $3, and Diploma.

Table Covers.—Mrs. Geo. W. Patterson, Chautauque Co., $4 and Diploma.

Groups of Flowers.—Mr. John Porter, Auburn, $3.

Lamp Mats.—Mrs. W. G. Pierce, Auburn, $3; Mr. Brockway, Brockport, for variety of worsted-work, Diploma.

Worsted Rugs.—Mrs. Lucas, Auburn, $4; Mrs. Roxana Cottle Hurston, Buffalo, $2, and Diploma; Cornelius Walcott, Elbridge, $3.

Fancy Chairs.—Mrs. Sarah Harbottle, Auburn, $1; Joseph Sabin, Syracuse, Diploma; Ladies of Utica Female Academy, $3, and Diploma.

Handkerchiefs, Caps, &c.—Mrs. V. R. Voorhees, Amsterdam, $3; Miss Abby Allen, Camden, $3; Miss Green, Jordan, (child's dress,) $1.

Fancy Painting and Needle Work.—Mrs. Wm. A. Dutcher, Milo, $3, and Diploma.

Embroidered Shawls.—Mrs. Alanson Benson, Skaneateles, $3; Mrs. John G. Wheeler, Sennett, (Thibet cloth,) $3.

Embroidered and Stuffed Quilts.—Mrs. Joseph Beach, Auburn, $3; Mrs. Rebecca Johnston, Syracuse, $2; Mrs. Roxanna Cottle Hurston, Buffalo, Diploma; Mrs Hiram Hubbard, Canandaigua, $3; Mrs. Eliza Harmon, Wheatland, $2; Miss Mary J. Patty, Auburn, $2, and Diploma; Mrs. D. C. Munroe, Elbridge, $3; Mrs. Eliza Harmon, Wheatland, $2; Mrs. Wm. C. Sheer, Phelps, Diploma; Mrs. C. A. Frost, Delhi, Diploma; Miss L. C. Morris, Auburn, $1.

Silk Patch Piano Cover—Miss Harriet A. Williams, Rochester, $2, and Diploma.

Embroidered Silk Suspenders.—Mary C. Van Buren, Albany, $3, and Diploma.

Ornamental Bead Bell-Rope.—Mrs. Millard Fillmore, Buffalo, $5, and Diploma.

Fringe Mittens.—Mrs. S. T. Stebbins, Homer, $1, and Diploma.

Lace Veils.—Miss Abbott, Auburn, $3.

Worsted Card Port-Folio.—Miss Matilda Davis, Buffalo, $2.

Ornamental and Domestic Needle Work.—Mrs. V. R. Voorhees, Amsterdam, Diploma, and for Table Cover, $2, and Diploma.

Bonnets.—Mrs. Cook, Syracuse, $3, and Diploma; Mrs. F. H. Graham, Auburn, Diploma; Miss Atwood, Salem, $5, and Diploma.

Lace Caps and Capes.—Mrs. Cook, Syracuse, $3, and Diploma.

Fancy Worsted Chain.—Miss Mary F. Snow, Auburn, Diploma.

Lamp Stand.—Mrs. B. F. Hawks, Phelpstown, Diploma.

Silver Ware, Pens, &c.—Willard Hawley & Co., Syracuse, $5, and Diploma; F. W. Maffit, Syracuse, $5, and Diploma; B. R. Norton, Syracuse, (for Gold Pens,) $5, and Diploma; Washburn & Robinson, Taunton, Mass., (for Pen-Nibs,) Diploma; S. N. Smith, Auburn, (for Dental Work,) Diploma.

Weather Strip for Doors.—Wm. Genett, Syracuse, (Gifford's Patent,) Diploma.

PLOWING MATCH.

1st. Davis Cossit, Onondaga, $15; 2d, Azarial Letts, Ulysses, $12; Henry Willard, Cayuga; $10; L. C. Pratt, Salina, Col. Tour; J. B. Gaylord, Auburn, Vol. Trans.

JOSEPH ALLEYN, Ass't. Sec'y.

OSAGE ORANGE.

WM. NEFF, Esq., in a communication to the *Ohio Cultivator*, says he has long since come to the conclusion that the Osage orange, is decidedly preferable to any other plant for hedging.

"The plants," he observes, "are best propagated from the seed, which I have always planted in the spring, (from not having been able to get them in the fall,) in a nursery, in broad drills, about a foot apart, the seed scattered and separated an inch or two in the drills. My experience, however, plainly tells me that they should be planted in the fall, as when planted in the spring they vegetate but sparingly, and oftentimes many spring up the ensuing season, from the seed which had laid in the ground a year."

The seeds, he says, can be obtained in any quantity in the neighborhood of Columbus, Hempstead county, Arkansas, for the mere expense of gathering. He states that in one quart there are about eight thousand seeds. The plant is said to be very hardy, and when once vegetated is sure to grow.

"The plants may also be favorably propagated from the trimmings of the roots when taken from the nursery to set in the hedge. They may be cut in small pieces, only two or three inches long, and planted in drills with the end barely covered by the soil. They will be sure to grow, unless they have been too much exposed, and suffered to become dry, which should be carefully avoided by covering with earth till ready to plant.

"At one year old, they may be transplanted to the hedge, or at two years they are stronger and better, and give more spare roots to propagate from. I have not found the fall planting to succeed well—the spring is far preferable.

"At a year old, whether they remain in the nursery or set in the hedge, they should be cut off within one or two inches of the ground; the next spring six inches; and about the first of July about fifteen inches; and if not in July, then the following spring, after which they will require but little more than side and extreme top pruning. Or the hedge may be thickened, and some of the above pruning avoided, and perfected sooner, and perhaps as desirably, both for utility and beauty, by careful intertwining of the lower branches; the numerous thorns will prevent any change of their places.

"In making the hedge, the ground should, of course, be well prepared the previous year, and in the early spring well plowed and harrowed, till quite mellow. The line is then laid, and a trench formed with a spade deep and wide enough to admit the roots; plant in two rows, six inches apart, and twelve inches apart in each row, diagonally, so that the double row makes the plants equal to six inches apart in one line. The distance between the plants can be well preserved, by first preparing a stick cut in niches at every six inches, and laid alongside the trench, which, being straight on the one side, will govern one row, and the eye will direct the other with sufficient accuracy. The plants having been taken up and properly pruned of the tops and roots, are scattered along the trench, and a man or boy, taking one in each hand, puts them in their places in the trench, while another stands with the shovel of well pulverized earth, which he carefully casts upon the roots, and thus they proceed on; afterwards fill in and press the earth to the roots with the hand or foot. When all are set, by means of a more elevated line, and a good eye, they may be pressed to a perfect straight line. Dress your ground, and all is done till the weeds and grass want eradicating. It is a general error in rearing trees, &c., to suppose the work done when planted. It is worse than labor lost, unless afterwards cultivated and protected beyond the reach of the stock, grass, and weeds; nay, it is downright waste."

EXPORTATION OF AMERICAN WOOL.

HAMILTON GAY, Esq., of New-York, in a letter to the *Journal of Commerce*, states that the chief obstacle to the success of American wool in the English markets, is its unclean condition, and not a prejudice against the article, merely because it is American. He says our wool has not only been shipped in bad condition, "each fleece by itself considered, but long wool and short wool, the weak and the strong, the coarse and the fine, the felting and clothing qualities, have been mingled in the same sack, with a degree of knowledge and judgment about equal to that which would characterize the conduct of a farmer who should send his wheat, corn and oats to market, mixed together in the same bag." This he is confident has much depressed its value in England, for "nowhere," says he, "is property so carefully examined and so correctly estimated before purchasing, as in that country; and no where else does a good article of its kind, in good condition, bring so high a relative price; and nowhere are such heavy deductions made and allowed for fraud and ill condition."

He states the consumption of England to be about two hundred millions of pounds annually, three-fourths of which is the growth of Great Britain, and the balance is said to be "imported from every climate of the earth, duty free." He thinks all must agree, "that hereafter the prices of our wool must be regulated principally by its export value"—that "it must be so to enable our manufacturers to compete with foreign rivals, as well as from the abundant supply."

SALE OF AYRSHIRE STOCK.

THE sale of Capt. GEO. RANDALL's herd of Ayrshires, took place at New Bedford, on the 6th of last month. We are indebted to a gentleman who was present for the following memoranda :—

Cows.

Young Swinley, (imported,) 11 years old, sold to Mr. Gray, of Boston, for $70.

Maggie, (dam Young Swinley,) 6 years old, sold to Mr. Bickett, for the Mass. Ag. Society, for $90.

Pink, (dam Maggie,) 4 years old, sold to Mr. Lawson, of Lowell, Mass., for $75.

Medal, (imported,) 7 years old, sold to Mr. Lawson, for $127½.

HEIFERS.

Gowan, 3 years old, sold to Mr. Bickett, for $105.

Nelly, 3 years old, sold to Mr. Sproat, of Taunton, Mass., for $52½.

BULLS.

Jock the Laird, 1 year old, sold to Mr. Rodman, of New Bedford, for $70.

Sandy, 1 year old, sold to Mr. Dean, for $29.

HYBERNATING ANIMALS.

THE manner in which life is supported in those animals, which remain a long time in a state of dormancy, is, to the first view, at least, quite mysterious. In our region of country, we have the wood-chuck, (or "ground hog,") hedge hog, and some other animals, which pass six or seven months of the year in a senseless sleep. During this long period, they take neither food nor drink, and most of the functions of the body are totally suspended. The black bear also hybernates for a considerable portion of the winter season, but does not fall into as low a degree of torpidity while "denned up," as some other animals.

It is a matter which has often excited inquiry, how life could be supported for so long a time, apparently without sustenance. Observation, however, teaches, that in hybernating animals, a deposit of nourishment is accumulated during their active period, which serves as a source of subsistence during the remainder of the year. The material which affords this supply, is *fat*, and during the period of sleep it is gradually consumed by the process of respiration, or in supporting life. The amount of material consumed is less, however, than would be at first supposed. The reason of this is, that life is only kept up in a very low degree—the very slight action of the system occasioning but little waste, and, of course, calling only for a supply proportionately small.

Dr. HOLMES, of the *Maine Farmer*, in a very sensible and interesting article on this subject, remarks:

"The physiological condition of those animals which become completely torpid during winter, cannot be perfectly ascertained. It has been found, however, that they have a great diminution of bodily temperature —breathe very slowly indeed, so that it is hardly possible to perceive any respiration at all—the pulsation of the heart is hardly felt, and the circulation is of course very languid. The feeling or irritability is almost destroyed, for you can cut off a limb and lay open the body without their appearing to feel it. As we have before stated, they become very lean and emaciated; but notwithstanding all this, when they awake at the end of the torpid period, they are very active and vigorous."

There is one expression (and but one) in the above quotation, to which we take an exception, viz: that animals "*become very lean and emaciated*" at the close of their hybernating period—at any rate, we know that they do not *always* become so. We are aware that the idea advanced by Dr. H. is also countenanced by LIEBIG; but still we are satisfied that it is not altogether correct. We have known bears killed in their "dens," where they had remained for four or five months, which, on being dressed, were found excessively fat; and we have known wood-chucks dug out of their holes in the early part of spring, which were in a surprising state of fatness.

Now we do not by any means assert that these animals, would have been as fat at the close of their torpid state as they were at the commencement, or that the fat is not *lessened* during this state; but we mean to say that so small an amount was consumed, that there was still left a large surplus deposit. Wood-chucks, as before stated, are more torpid in winter than bears, and they therefore require proportionately less to support life; in fact, we have often heard the remark, in our younger days, that these animals "come out *fatter* in the spring than they were in the fall." The remarkable degree of fatness in which they were sometimes found in the spring, undoubtedly led to this mistake; but their condition at this time, is good evidence that only a small amount of fat, comparatively, had been consumed during the winter.

But the condition of animals at the close of hybernation, depends, of course, on the condition they were in when they entered this state, and also the temperature, and other circumstances to which they are exposed. They generally take care to place themselves below the reach of frost, and in a situation where they would be chiefly unaffected by changes of temperature. If the accumulation of fat was large in the fall, it will not all be required to carry the animal through the winter. In regard to bears, it is often remarked by hunters, that those which ramble in winter are poor, and that those which remain in their dens are fat. The reason is obvious—the fat animal is supported from the deposite acquired during the previous season; the poor one is obliged to procure subsistence from fresh supplies of food, or perish of starvation.

But whatever may be the quantity of fat which these animals may have when they first come out of their hiding places in the spring, they quickly lose it. We are convinced of this fact, partly from our own observation, and from the assurances of experienced hunters. They have informed us that the first object of the animal on awaking from its long sleep, is to procure herbage of a cathartic quality; and under the course of depletion which is pursued, the system is rapidly reduced,—the fat is carried off, and the hair becomes loose, and falls off. In a very short time however, the animal appears to have undergone a complete renovation; his old coat is succeeded by a new and brighter one, and with renewed strength he resumes his career of life.

LIEBIG cites a case of a pig, which, having been overwhelmed by a slip of earth, lived 160 days without food; but it was found that during this time it had lost in weight 120 pounds. In reference to this, it should be remembered that the pig was not during his confinement wrapped in a deep sleep; and from the constant uneasiness, which it is natural to suppose his situation produced, there was a much greater consumption of material in supporting life than there is in animals which lie in a torpid state.

This subject has a practical bearing upon which we would say a few words. Although we cannot induce our domestic animals to pass the cold months of winter like the bear and wood-chuck, in an unconscious sleep, yet we can place them in a situation which so far approximates it, that the expense of supporting them may be very much lessened, and their comfort, besides, greatly promoted. It has been proved that warmth and quietude are equivalent to food. In reference to the hog, so much does he resemble the bear in his nature and organization, that if he is well coated and lined with fat at the commencement of winter, he is much inclined to sleep away the time in a comfortable stye; in this situation, so little is the bodily waste, that a trifling amount of food only is required. A knowledge of this important fact, has induced some farmers to adopt a very economical mode of wintering their hogs.

RECENT AMERICAN PATENTS.

Reported for "The Cultivator," by ZENAS C. ROBBINS, *Mechanical Engineer, and Attorney for procuring Patents, Washington, D. C.*

For an improvement in hames for harness. Kasson Frazer, Fayetteville, New-York, Sept. 26, 1846.

The claim in this case clearly sets forth the manner of construction, and the operation of this valuable invention.

Claim.—"What I claim as my invention, and desire to secure by letters patent, is the attaching the curved clipps to the *front* sides of the hames by means of double joints, so as to render them self-adjustable, and to keep the draught directly in a line from the point of attachment of the clipps to the hames, to the point of attachment of the tugs to the whiffletree, in the manner and for the purpose as herein set forth."

CRANBERRIES.

ABEL BURNHAM, gives in the *Massachusetts Plowman* an accoumt of the manner in which he has cultivated a third of an acre of cranberries. He commenced in April last, on a piece of loamy soil that had been planted to corn the previous year. He took the vines from a swamp, and set them out between the old corn-hills, without plowing or harrowing. In some instances he cut up about six inches square of the turf of the cranberry bed for making each new hill, and in other instances he merely set a few vines; both, he says, did equally well. On the first of June, he went over the hills with a cultivator, making the ground smooth and light. He then hoed the plants, but used no manure at any time. The plants grew finely; about the 20th of July, they blossomed, and have this season produced a very good crop of fruit—some of the hills yielding a pint of berries each. At the date of the communication, (9th Oct.) he states the vines covered the whole ground. He sent a lot of the cranberries to the editor of the *Plowman*, who says they were the "largest and handsomest" he had ever seen. The editor, in making an estimate of the quantity of fruit produced on an acre, says:—

"One pint of berries on each hill, *as far apart as bean hills*, would give 125 bushels per acre."

We would by no means doubt the correctness of the *Plowman's* calculation, but should like to know how *far* "apart" bean hills are?

We see by the reports of the Plymouth County (Mass.) Agricultural Society, that Mr. ABIEZER ALGER, of West Bridgewater, obtained a premium for a sample of cranberries from a crop of 296 bushels and 17 quarts, from two acres of ground. This crop appears to have been the produce of a bog meadow. Mr. BURNHAM'S experiment is the only one in regard to the cultivation of cranberries on dry land, of which we have learned the results.

NOXIOUS INFLUENCE OF BRICK-YARDS.

At a late meeting of the New-York Farmers' Club, Dr. UNDERHILL spoke of the influence of the gases of brick-yards, which he said he had for the last six years observed to be very injurious to fruits and vegetables. We take from the Tribune an abstract of Dr. U's remarks on the subject.

"At the time when his attention was first directed to this subject, the following incident occurred to establish his opinion. A friend had observed that, immediately after a severe thunder-shower, all his vineyard appeared in a sickly condition, and no satisfactory reason could be assigned for the occurrence of the phenomenon, until the investigation had proceeded sometime, when Dr. U. discovered that the gases of a brick-yard in the vicinity had been blown over the vineyard, and produced the disastrous effect, turning the leaves to a dark, reddish brown color. These gases were stated by the Doctor to be more particularly injurious in the latter stage of the burning of the kiln, and derive their noxious property from the anthracite coal used, the proportion of which is, in the interior of the kiln, three pecks of hard coal to a thousand brick, and on the outside twelve bushels to the thousand. This he knew to be the case in at least one brick-yard. If there is a light wind blowing, these gases will extend their deleterious influence for miles, the supply being kept up at the yards for hours. They are particularly detrimental to Newtown Pippins, the foliage of which is destroyed for miles. The leaves are turned completely over in many cases, and one side is turned to a different color, a reddish-brown, appearing as if touched by a vehement fire. By these gases trees are often rendered unable to furnish healthy sap for the proper sustenance of the fruit. Speaking of pippins, he mentioned that one of the finest orchards in the country, in the town of Cortlandt, Westchester Co., containing from 1000 to 1500 trees, was entirely ruined, principally by the gases from numbers of brick-yards in the immediate vicinity. This subject was referred to a Committee, to report to the Farmers' Club.

DEMAND FOR AMERICAN PRODUCE.

Extract from a letter received from Rev. H. Colman, to the Editor of the Cultivator, dated London, 18th September last. In relation to the demand for American bread-stuffs in England, he says,

"There will be a quick demand for all the produce which is likely to come. The best informed and most judicious and sagacious men, are not without alarm for a very serious scarcity of food. The utter failure of the potato crop in Ireland is determined, and the consequences are frightful to contemplate. It is quite general here; but I hope that the alarm with regard to the disease among the turnips in the north, is premature. The crops of oats and barley are not large—wheat is more than an average crop; but there will be no surplus, and there is anticipated a very large demand for bread-stuffs upon the continent.

"My 8th No. will, I suppose, soon be through the press, as the publishers have all the matter. In this I have treated fully, the subject of live stock. I have desired to avoid any improper partiality, and to place the subject in as fair and proper a light as possible. I shall leave now in a few days for the continent, and hope not to be unreasonably long before I send the 9th No."

INQUIRIES.

CORN FOR FODDER.—J. H., (Guelph, C. W.) We prefer sowing or planting corn in drills, for fodder—the drills 2½ feet apart, and two bushels seed to the acre. The best kind of corn we have ever tried for this purpose is the "Chinese tree corn;" next to this the large sweet corn. When it is cut, it should lie on the ground as thin as possible, for a few days, in dry weather, and then may be bound in small bundles near the top and set in small shocks, where they should remain till thoroughly cured. It should be cut when the top of the tassel begins to turn. Both the stalks and leaves are good food, if well managed, but the leaves are best. It is best to cut it with a machine before it is fed out.

CENTRE-DRAFT PLOW.—A SUBSCRIBER, (Easton, N. Y.,) Prouty and Mears' centre-draft plow is designed for *sod*. Its "practical operation" is approved. The usual weight of No. 23, (for level furrows,) is 95 lbs., with wheel and cutter—that of the 5½, or self-sharpening, (for angular furrows,) is 120 lbs. They are "sufficiently solid in construction to be serviceable on rough, stony or rocky land." The cost here is $10¼ for the 23, and $13 for the 5½, with one extra point for each. The price of the points or shares, is 50 cts. each. We are unacquainted with the "Corliss" plow.

WASTE FROM LIME-KILNS—A SUBSCRIBER. We should think the "mixture of lime, ashes and coal" you speak of, would be of use as manure, but a trial would best show to what crops and soils it is best adapted.

STACKS AND HAY BARNS. A SUBSCRIBER. We should prefer putting hay into stacks well made and *thatched*, to using what are called "Dutch barns," or caps. The stacks, when well made, expose less surface to the weather, and they can always be erected on the spot where they are most wanted; but the caps are not so readily moved.

CHEVIOT SHEEP.—Z. B. W., (Little-Falls.) We think that the mutton of the Cheviot sheep sells as high in the British markets as that of the South-Down. The wool answers for combing, and we think the fleeces average something more in weight than the South-Downs.

DORKING FOWLS.—J. H. C., (New-Albany, Ind.) We do not know any breeders of Dorkings near Louisville or Cincinnati. We would refer you to Mr. *Batesham*, of the (Columbus) Ohio Cultivator. The fowls could be had here, if desired,

Soot, when applied to the roots of the common primrose and cowslip, has the effect of transmuting their complexion from their wonted pale yellow color to that of a delicate pink.

WILMINGTON (DEL.) CATTLE-SHOW.

The annual exhibition of the Newcastle County Agricultural Society, was held on the farm of Col. Andrews, near Wilmington, and in rear of his elegant mansion. The weather was most propitious, and the concourse of spectators immense, beyond precedent; it being computed that more than 4000 persons were on the ground. A great portion of these were ladies accompanied by their husbands and families in their carriages,—a goodly show, and evincing a growing preference for this, the most exciting of all our rural enjoyments.

The show of stock was not numerous. but the plowing match eclipsed all that had gone before it, and was most nobly contested by twenty plows, divided into two classes; the first for men, the second for lads under 14 years of age. The ground chosen was uneven, with a growth of first and second crop of clover, and weeds three feet in height, and strong in proportion—a new feature in plowing for premium—through which the plows had to find their way, without first harrowing down or being mown, as is customary; and well did they perform the task, going across the old furrows in search of obstacles to contend with, and overcoming them with ease.

The result speaks volumes in favor of the Prouty & Mears', or Centre-Draught Plows, which under such trying circumstances, were found to pursue "the even tenor of their way," through the thickest of them, without the intervention of the plowman, furrow after furrow, at the preparatory trial, before starting for premiums, and performing such work as is indeed but little inferior to "spade labor." At the conclusion of the match, the following premiums were awarded to the Centre-Draught ploughs of Prouty & Mears, viz: The first, second, and fourth premiums in the 1st class, and the first, second, and third premiums in the 2d class—six premiums out of eight, the number offered.

The winner of the first premium in the second class, was the son of Mr. Bryan Jackson, aged eleven years, who, the last year, at the age of ten, took the second premium at Wilmington, and a gratuitous premium of $3 at the Philadelphia Ag. Society's plowing match, and it is his intention again to contend for the men's prize, the coming season, at the same place. Success attend such "sons of the plow!" The emulation thus fostered and encouraged, will "grow with their growth, and strengthen with their strength," and train to the service a race of plowmen that shall be able to cope with those of whom Colman speaks, "whose furrows lie like the plaits of a shirt-bosom"—as did those at the recent match of the Newcastle County Society, under most untoward circumstances; showing most conclusively, that with the Prouty plows with wheels, it is no longer necessary to assign such labor to the best hand upon a farm, lads of a dozen years of age being quite competent to the task. B.

Wilmington, Del., 19th Sept., 1846.

TO THE OFFICERS OF AGRICULTURAL SOCIETIES.

The writer considers it desirable that there should be more of an interchange of views and prospects of the different Agricultural Societies, and especially he desires it between the county ones of New-York. In this way very many important improvements in the management of such bodies may be enjoyed by all.

It is proposed that upon the election of officers for each society, the name of the person who does the business of the society—either President or Secretary—with his post-office address, be sent to the Cultivator, (post age paid,) for publication.

That the Secretary of each Society shall keep a record of the names thus published, and upon the publication of the annual premium list, addresses, or any proceeding of the Society, enough be furnished to supply each of the other county societies with a copy. Some of the premium lists are very badly arranged, and are made out without much care. Let us look over the transactions of each other, and copy the good. C.

THE CULTIVATOR.

ALBANY, NOVEMBER, 1846

TO CORRESPONDENTS.

Communications have been received, the past month, from James R. Verdier, B. C., Clark Rich, N. Longworth, E. D. Andrews, L. A. Morrell, A Subscriber, Z. C. Robbins, G. P. Lewis, T. H. Collins, D. C. C. Wright, X. Y. Z., Rusticus, J. Davis, R. H. Levering, Charles, S. W. G.

Books, Pamphlets, &c., have been received as follows:—

Descriptive Catalogue of Fruits and Ornamental Trees, &c., cultivated and for sale at the Mount Hope Nurseries of Elwanger & Barry, Rochester.

Advertisement of the Seneca Lake Highland Nursery of E. C. Frost, Catharine, Chemung Co., N. Y.

The New-England Ag. Almanac for 1847. F. Trowbridge, publisher, New-Haven, Conn.

Also a great number of newspapers containing Ag. Prize Lists and accounts of annual exhibitions of Ag. Societies.

A Brief Compendium of American Agriculture. By R. L. Allen, Esq., of Buffalo. New-York, Saxton & Miles—438 pp., 12 mo.

MONTHLY NOTICES.

Guano.—A correspondent at Mamaroneck, Westchester county, N. Y., whose signature is wholly illegible, writes that he used guano the past season on wheat, rye, oats, barley, potatoes, Indian corn, ruta-baga, common turnep and sugar beet, on all of which he states that it operated well, except corn and rye. He also used guano on his meadows. He used 200 lbs. guano and 300 lbs. gypsum per acre, and it increased the quantity of hay from 1800 lbs. per acre, (where there was no guano or gypsum,) to 4160. Recommends 300 lbs. guano and 300 lbs. gypsum as a top-dressing for meadows, to be applied immediately previous to a rain, just as the frost leaves the ground. For oats and barley, he considers 224 lbs. per acre a good dressing.

Stock at Auction.—Wm. Cushman, of New-Braintree, Mass., offers at auction on the 10th inst., Durham cattle, South-Down sheep, and Mackay pigs.

Cheviot Sheep and Ayrshire Cows.—We see by a communication in the October No. of the *Farmers' Library*, that Hon. Daniel Webster has, on his farm at Marshfield, Mass., a flock of twenty Cheviot sheep, lately imported from Scotland. We understand that Mr. W. has also lately imported some fine Ayrshire cows which have been added to the superior herd before kept on his farm.

Morgan Horses.—We are informed that Messrs. Geo. A. Mason, of Jordan, and —— Munro, of Camillus, purchased the fine Morgan horse "General Gifford," at the late State Fair at Auburn. We have no doubt that he will prove highly useful in breeding to the good-sized strong mares of that section. We publish in this number the report of the committee on "Foreign Stock" exhibited at the Fair, and we would call attention to the remarks therein relative to this horse and the "Gifford Morgan" which was exhibited with him.

Fruits.—Since our last, we have received from Apollos Rollo, of Stephentown, specimens of the "Gloria Mundi" apple, weighing 17 ounces each; from Professor Hall, of this city, specimens of a greenish-red, striped apple, known in the eastern part of Massachusetts as Seeknofurther. The samples sent were from Hingham, Mass. We do not find this apple described in Downing's "Fruit and Fruit trees," or any work at hand. It is well known in the section named, and is an ex-

cellent apple from the middle of September to the middle of October. From E. DORR, specimens of a seedling clingstone peach of superior excellence, and very fine samples of Catawba grapes. From S. D. SMITH, Lansingburgh, specimens of beautiful quinces, from trees reared from seed planted eight years ago. Four of them weighed three pounds and a quarter. From GEO. DESBARATS, Montreal, (through Mr. THORBURN, of this city,) specimens of the following varieties of apples: St. Lawrence, Fameuse, Ribston Pippin, Golden Pippin, Pomme Grise, Cardevella, Montreal, Beauty.

From E. P. PRENTICE specimens of the Gloria Mundi, (one of which weighed 20½ ounces, and was 14½ inches in circumference,) Greening, Black Gilliflower, Newtown Pippin, English Pearmain, Talman Sweeting, and three other very fine kinds, the names of which are unknown. From R. H. PEASE a specimen of a winter russet sweeting.

LARGE APPLE TREE.—During a recent visit to New-York, we visited the garden of Thomas Pringle, Esq., corner of sixth avenue and eleventh-street, at the invitation of a friend, to examine an ancient apple tree, which we found to measure ten feet, six inches in circumference at the ground. The land on which it stands, was purchased by the late Samuel Milligan in 1799. The tree has not, it was said, increased in size since that time. It is a Pearmain, and still bears more or less fiuit annually.

☞ Mr. J. N. BLAKESLEE, wishes to correct a mistake which occurred in the extracts we published from his communication, in our August number. It is there said—"I never sell any of my best ewes till they are advanced in years." Mr. B. states that the article (or a portion of it,) was written several months before its publication, but that before it appeared in print, he *had* sold a few of his best ewes.

Mr. REYBOLD'S SHEEP.—A writer in the *Greenville (S. C.) Mountaineer*, requests to be informed how long the fleeces of Mr. REYBOLD'S Oxfordshire Sheep, spoken of in our July number, had been growing. He thinks, "justice requires that when the yield of wool is reported, the *time* in which it was grown should also be stated." The statement we published, gives the date of the shearing of this year, 20th May, but the time they were sheared last year, is not mentioned.

DONATIONS TO THE STATE AGRICUL. SOCIETY.—We are gratified to learn that JAMES LENOX, Esq., of New-York, has presented the State Ag. Society with thirty copies of Washington's Letters on Agriculture. They will be paid out as premiums by the Society. JOSEPH FELLOWS, Esq., of Geneva, who in 1843 presented the Society with $100, has lately made a donation of $50 more. Such liberal efforts to advance the interests of agriculture, cannot fail to be appreciated by the Society as well as by the community in general.

CROPS IN MAINE.—The *Maine Farmer* says, —"It has been an excellent season. Grass has been excellent, and our barns are full of hay. Wheat has been more than a medium crop. Oats are very good. Indian corn was never better. Potatoes, as a general thing, are of good quality, though hardly an average crop, as it regards quantity—not so many planted as usual. Grafted winter apples below an average crop. Natural fruit is abundant."

SAXON WOOL.—We have received from CHARLES WATKINS, of Walpole, N. H., some samples of very fine and beautiful wool, from his flock of Saxon sheep. If these samples, which appear to have been taken from some fifty or sixty sheep, are a fair criterion of the quality of the whole flock, it must be valuable. We are not informed of the number of the flock.

CORRECTION.—In the list of premiums published last month, it was stated that the first premium for *horse powers* was awarded to RICHARD MONTGOMERY, of *Onondaga*—it should have been *Waterville, Oneida county.* Mr. MONTGOMERY thinks that the editorial remarks in our last, in relation to FITZGERALD'S Portable Mill and HORSE-POWER, did "injustice" to *his* mill, "indirectly." He says,—"the truth is, Fitzgerald's Horse-Power made the attempt, with two horses, to operate his mill, and failed. It was then moved to my Horse-Power and successfully operated by it with *one* of the same span of horses which were insufficient to move the mill with Fitzgerald's power."

MERINO WOOL.—We have some samples of very handsome Merino wool from D. and L. EASTMAN, of East Rupert, Vt. They are free from gum, white, soft and fine.

CROPS ON LONG ISLAND.—The following is an extract from a letter dated Queens County, Sept. 19th, 1846, which came too late for notice in our last number.

"Our farmers are now busy cutting up the corn, which will be very good. Buckwheat will not be a heavy crop. Potatoes rotted much, and the crop will be light. The weather has been so very fine, that we have pasture in abundance, and want cattle and sheep to feed. The distemper with horses yet continues on the island, but is making towards the east end. I have heard of it as far east as Smithtown, where it was very fatal. It has been most fatal upon the south side of the island; in some villages a horse or two dying upon each farm. Perhaps 1000 horses have died with it upon Long Island. It is generally far less fatal now, than early in the season."

POTATOES INJURED BY WIRE-WORMS.—Mr. J. R STARR, of Verona, N. Y., informs us that his potatoes the past season were greatly injured by the fibres which connect the tubes with the stalk, having been eaten off by wire-worms. The effect of this was to cause the tops to wilt and die, presenting an appearance similar to those affected with the blight, or what is generally known as the "potatoe disease."

MERINOS FOR MISSISSIPPI.—We understand that the Messrs. LAW, of Meredith, Delaware county, N. Y., have lately disposed of a lot of superior Merino sheep to Mr. BROWN, of Mississippi. The sheep have been forwarded, through an agent in New-York, to New-Orleans.

EFFECTS OF STRONG ALKALIES.—A correspondent mentions that he put the ashes from a leaching tub into his hog-pen, and his pigs, from working among them, were all taken lame, and some of them lost their hoofs. Just as might have been expected. The ashes should have been very thinly spread over the yard.

POTATOE ROT.—A correspondent of Orange County, with the signature of CHARLES, writes us that according to his experience, the best way to escape the potatoe disease, is to plant very early. He states that last spring he planted one corner of a lot about a fortnight earlier than the rest of the field. "They were," he says, "well tended, and while the vines were green I mowed off the tops of half of the first planted and half of the last. On digging them, I found mowing the tops did no good whatever, no difference being perceptible between those which were mowed and those which were not. Of those which were planted first, (about the 19th May,) three-fourths were rotten; those planted last, had not a sound one among them. Again, of those potatoes which were planted in a field about the 27th April, I should judge, from the few which have been dug, that comparatively few will be rotten, although the yield will be quite light. I think potatoes which do not rot, do not yield as well as they did a few years ago."

ATTACHMENT OF A COW FOR PIGS.—Mr. S. LEECH, of Wilbraham, Mass., relates a singular case of the attachment of a cow for pigs. In relation to this cow, Mr. L. writes—"a few years ago she slunk her calf, and as I had a pig running in the barn-yard, she took to the little porker and was very partial to him—not permitting dogs, or other animals to molest him. I killed the pig in the winter, and as the cow had another calf in the spring, I was in hopes she would never notice a pig so again; but after I sold her calf, and got another pig, she took to him, and even taught him to suck her! I had the good fortune to break up that. I got me another cow, and she was not so fond of the pig, but would let him feel her horns. This last spring, as I

did not get a pig till sometime after I had sold the last calf from the cow first mentioned, I was in hopes she had forgotten all about the pig, but she still manifests a strong regard for him, and lows for him when she comes from her pasture as she would do for her calf."

PROFITS OF BEES.—R. R. CHILD, Pittsfield, Vt., thinks keeping bees very profitable. He says every farmer may, by the investment of a few dollars, supply his family abundantly with honey, provided the bees are properly managed. He says one of his neighbors, Mr. A. COLTON, has realized more profit for the last four or five years, in the produce of honey than any other man in Pittsfield with "five times the amount of money invested in any other way." He says Mr. COLTON has an improved hive, but he does not give us such a description of it as enables us to form an opinion of its merits.

NEW PUBLICATIONS.

A BRIEF COMPEND OF PRACTICAL AGRICULTURE; by R. L. ALLEN, Buffalo: SAXTON & MILES, New-York, publishers.

This work, containing 437 pages, 12mo., is as it purports to be, a brief compendium of agriculture; but from considerable examination, we think it in general very judiciously written. No attempt is made to create astonishment by the announcement of *new* discoveries, but the most essential *known* facts in relation to the different branches of husbandry, are presented in a clear and perspicuous style. Mr. ALLEN has been known for several years, as one of our best and most practical agricultural writers, and we presume his reputation in this respect will be fully supported by this work.

THE TREES OF AMERICA: NATIVE AND FOREIGN, PICTORIALLY AND BOTANICALLY DELINEATED, AND SCIENTIFICALLY AND POPULARLY DESCRIBED: Being considered principally with reference to the Geography and History, soil and situation, propagation and culture, accidents and diseases, etc. Illustrated by numerous engravings. By D. J. BROWNE, author of 'Sylva Americana.' New-York: HARPER AND BROTHERS.

This is a most comprehensive title, truly, and had the author acted up to the full letter of it, he would have found some difficulty in compressing the matter he would have been obliged to write, into *thrice* 520 pages, the number which his volume contains. It has grown to be the fashion to give a high-sounding title to any work which describes in a general manner, the products of the United States, merely; as if *America* were the United States, or the only part of the continent worthy of the name. We are, notwithstanding, a plain people, and we like to have the names of either books or things, express what they really are. The title of this work, would lead us to suppose that in it we have a history and description of all the species and varieties of trees that grow on this continent, in its length and breadth—from the shores of the Atlantic to the Pacific—from the Arctic ocean to Patagonia. But such is not the fact—it does not even describe many of the principle trees of the United States. Those important trees, oaks and pines, are entirely omitted, as are also willows. This is a discrepancy, compared with the title, which ought not to have occurred.

In the arrangement of the work, Mr. BROWNE has closely followed LOUDON, to whose works he says he is deeply indebted—as indeed who is not, that writes on the subject of trees? The descriptions of species are generally plain and comprehensive. The names and descriptions of the principal varieties are introduced; following which are its geography, history, the description of the soil and situation most suitable for its successful growth, and how to propagate and manage it. Following this, are given accounts of the casualties, insects and diseases, to which the tree is subject. All this is interspersed with many a legend, anecdote and story, illustrated with apt quotations. This has greatly *popularized* the work, making what most people have been in the habit of considering a dry and scientific study, highly interesting.

The illustrations are in some respects objectionable. The portraits of the trees are entirely too small, generally, to convey a characteristic idea of the species or variety intended to be represented, and, what is a still greater objection, the *same cut* is sometimes used to represent several trees of not only different species, but distinct genera—thus confounding their opposite characteristics. The cuts of the leaves are generally well executed, but we are sorry to notice that some of the cuts designed to show sections of fruits, convey no proper idea of the fruits to whose names they are attached. Of this description, is the cut of the pear, on page 287 and the cut of the apple on page 296. The blossoms, also, in some instances, are not so correctly delineated, as to be readily recognized. This may be said in reference to the cherry, the pear and some others.

There is, however, a large amount of useful information in the book, and we have do doubt that it will prove valuable to a considerable portion of the community. *

FOREIGN.

By the Caledonia, arrived at Boston on the 20th ult., we have our foreign exchanges to the first of October. The failure of the potato crop is ascertained to be less than was a short time since anticipated. The wheat crop of England is said to approach nearly to an average crop, and oats and barley are more than an average. The stock of *old* wheat at present, is greater than it has been since 1837. Hay is abundant, and the turnep crop is good. The prospect is, that there will be no necessity of using potatoes for stock, and that by economy in use, they may serve the people for three-fourths of the usual period, that potatoes are used. There is, however, no doubt that a considerable supply of breadstuffs will be required in the kingdom; at the same time, we think there is good sense in the caution given in some of the English papers, against running into wild speculations, as food will be sent to the British ports from every corner of the world where it can be spared. The effect of the news has been to raise the price of flour and grain in the American markets, but to what extent, cannot, up to the date of this writing, be fully ascertained. There was a demand in England for American butter and cheese—beef was dull—pork higher than at the same time last year, but American is in bad repute on account of the packing.

PRICES OF AGRICULTURAL PRODUCTS.

New-York, Oct. 23, 1846.

COTTON—New Orleans and Alabama per lb., 6¾a11½c.—Florida, 8½a10⅞—Upland, 6⅞a10¼ cts.

BUTTER—Orange County, per lb., 16a18c.—Western dairy, 13a15c.

CHEESE—Per lb., 7a7¾c.

FLOUR—Per bbl, $6.12½a$6.25—Richmond City Mills, $6.62½a$7.

GRAIN—Wheat, per bushel, $1.25a$1.33—Rye, 78a80 c.—Corn, 80c.—Oats, 35a37c.

HEMP—Russia, clean, per ton, $210.

HAMS—Smoked, per lb., 6½a9 cts.

BEEF—Mess, per bbl., $7a$8—Prime, $6.a$6.62½.

LARD—Per lb. 7½a8c.

PORK—Mess, per bbl., $9.12½a$10.18¾.

WOOL—(Boston prices.) Oct. 18:

Prime or Saxon fleeces, washed per lb.	38a40	cts.
American full blood fleeces,	33a35	"
" three-fourths blood fleeces,	25a28	"
" half blood do	23a25	"
" one-fourth blood and common,	20a22	"

AMERICAN HERD BOOK.

CONTAINING pedigrees of Short Horn cattle, to which is prefixed a concise history of English and American Short-Horns, compiled from the best authorities; by LEWIS F. ALLEN. This valuable book contains the pedigrees of about six hundred cattle, and it should be in the hands of every breeder of Short-Horns. A few copies for sale at the OFFICE of the CULTIVATOR.

Oct. 1—3t.

DOWNING'S WORKS.

VALUABLE WORKS, by A. J. Downing, Esq. *The Fruits and Fruit Trees of America*, or the Culture, Propagation, and management of the Gardens and Orchards of Fruit Trees generally; with descriptions of all the finest varieties of fruit cultivated in the country.

1 thick vol. 12 mo., with many engravings. $1.50. Or a superior edition in large 8 vo., to match the author's other works. $2.50.

"This is the most valuable of all the books which Mr. Downing has contributed to the higher departments of our rural literature, and it is the most charming book of the season. Some idea may be formed of its completeness from the fact of its containing a list of no less than 490 sorts of apples. Mr. Downing claims the right to talk about fruits and trees from having been born in 'one of the largest gardens, and upon the banks of one of the noblest rivers in America;' everybody will concede the right since he has shown himself so competent to the task."—*Broadway Journal.*

"This is a valuable practical work, and every orchardist and every fruit-grower should possess himself of its stores of information."—*U. S. Gazette.*

A Treatise on Landscape Gardening; adapted to North America, with a view to the improvement of country residences. Comprising historical notices, and general principles of the art; directions for laying out grounds, and arranging plantations; descriptions and cultivation of hardy trees; decorative accompaniments to the house and grounds; formation of pieces of artificial water, flower gardens, etc.; with remarks on Rural Architecture. New edition, with large additions and improvements, and many new and beautiful illustrations. 1 large vol. 8vo. $3 50.

"This volume, the first American treatise on this subject, will at once take the rank of THE standard work."—*Silliman's Jour.*

"Downing's Landscape Gardening is a masterly work of its kind,—more especially considering that the art is yet in its infancy in America."—*Loudon's Gardener's Magazine.*

Designs for Cottage Residences; adapted to North America, including Elevations and Plans of the Buildings, and designs for laying out Grounds. 1 vol. 8vo., with very neat illustrations. Second edition, revised. $2.00.

A second edition of the "Cottage Residences" is just published, as Part I.; and it is announced by the author that Part II., which is in preparation, will contain hints and designs for the interiors and furniture of cottages, as well as additional designs for farm buildings.

Gardening for Ladies; and Companion to the Flower Garden. Being an alphabetical arrangement of all the ornamental plants usually grown in gardens and shrubberies; with full directions for their culture. By Mrs. Loudon. First American, from the second London edition. Revised and edited by A. J. Downing. 1 thick vol. 12 mo., with engravings representing the processes of grafting, budding, layering, &c., &c. $1.25.

"A truly charming work, written with simplicity and clearness. It is decidedly the best work on the subject, and we strongly recommend it it to all our fair countrywomen, as a work they ought not to be without."—*N. Y. Courier.*

"This is a full and complete manual of instruction upon the subject of which it treats. Being intended for those who have little or no previous knowledge of gardening, it presents in a precise and detailed manner, all that is necessary to be known upon it, and cannot fail to awaken a more general taste for these healthful and pleasant pursuits among the ladies of our country.—*N. Y. Tribune.*

Published and for sale by WILEY & PUTNAM,
Oct. 18.—3t No. 161 Broadway, N. Y.

Messrs. W. & P. will publish shortly, *Wightwick's Hints to Young Architects.* Edited with additions, by A. J. Downing.

Also, a new edition of Lindley's Horticulture, edited by A. J. Downing, and Prof. A. Gray.

NOTICE.

THE undersigned expects to return from his journeyings in the southern states about the 1st February next, when he hopes to be fully prepared to meet and fill all orders in his line, particularly for his "Warren Horse Powers and Threshers," now so much and perfectly improved, his "Hand Threshers," and the "Trimble Horse Powers," and the Endless Chain Horse Powers—also for the "Platt's Improved Portable Burr Stone Mills,"—together with Ploughs, Castings, Corn-Shellers, &c., &c.

JAS. PLANT, 5 Burling slip, N. Y. City.

Nov. 1—2t.

FARM WANTED.

A GENTLEMAN is desirous of purchasing a farm, capable of being occupied strictly as a STOCK FARM, sufficiently near some railroad communicating with the Erie Railroad to facilitate the transportation of stock to market. It is wished that the farm should be situated in a healthful district, with pleasing scenery, and in the immediate vicinity of water, and having a house capable of accommodating a gentleman's family. The soil, and all the appurtenances of the farm, should be such as would yield the owner a good return for his investment. Applications, (*paid*) may be addressed to Box 2031, NEW-YORK POST-OFFICE

Oct. 1—3t.

FOR SALE.

A FEW South Down Rams and Ewes; also Cotswold Rams and Ewes—for sale by the subscriber.

JNO. McD. McINTYRE.

Albany, Sept. 22, '46.—2t

AGRICULTURAL WAREHOUSE.

183 *Front-st., New-York.*

THE subscriber offers for sale an extensive assortment of Farming and Gardening utensils, consisting in part of plows of Freeborn's, Minor's, Horten & Co.'s, Prouty & Mears', and Ruggles, Nourse & Mason's patterns. The Locked Coulter, and Wrought Share Plow.

Corn Shellers, Fanning Mills, Grain Cradles, Corn and Cob Mills, Straw Cutters, of Greene's, Hovey's, Eastman's, and other most approved patterns.

Horse Powers, Threshing Machines, &c. Gin gear, Mill, Horse-power, and all other castings, constantly on hand. Also a general assortment of Brass, Copper, and Iron Wire Cloth, for Paper, Rice, and other mills. Seives, Screens, Riddles, &c., &c.

Persons ordering articles from the subscriber may depend upon having them made of the best materials and in the most workmanlike manner.

JOHN MOORE.

New-York, Oct. 1, 1846—1t*

KENDALL'S CYLINDER CHURNS.

THE following in relation to the above churns, from a firm in Vermont, who purchase of us, will show in what estimation the cylinder churns are held.

"We wrote you a few days since, to forward three each of the two smallest size churns. Please send us immediately six each of three sizes. Churns are getting in good demand. Our people think there is quite a saving when they can fetch the butter in two minutes, instead of churning two hours with the old fashioned churn. The Kendall churn is getting to be all the go."

The above churns are always for sale at wholesale or retail, at the Albany Agricultural Warehouse, No. 10 Maiden Lane, and 23 Dean-st.

LUTHER TUCKER.

WIRE CLOTH SEIVE AND SCREEN MANUFACTORY.

THE subscriber has constantly on hand a large assortment of the above articles, which he offers at the lowest market prices.

D. L. CLAWSON.

July, 1846—10 mos. 191 Water-st, New-York

P. S.—All kinds of wire work manufactured to order.

FOR SALE.

A FEW fine Paular Merino sheep for sale, bucks and ewes; say about 50 ewes from four to six years old, and 40 to 50 buck lambs, that are nice, and of a large size, and 6 or 8 bucks that are from one to four years old, all in fine order.

JOSEPH I. BAILEY.

Newport, Sept. 1, 1846.—3t.

COMMERCIAL GARDEN AND NURSERY, OF PARSONS & Co., FLUSHING, NEAR N, Y.

THE proprietors of this establishment are constantly increasing their stock which now covers nearly seventy acres of ground, and includes every desirable variety of Fruit and Ornamental trees, Shrubs, Roses, Vines, &c Their possession of specimen grounds for the testing of every variety of fruit they cultivate, affords them increased facilities for the attainment of correctness. They would also call attention to their large assortment of Foreign Grapes, some seventy varieties of which they are fruiting under glass.

To venders and those who purchase in large quantities, liberal discounts will be made Catalogues can be obtained gratis of Parsons & Lawrence, 10 Pine st; of A. B. Allen, 187 Water st., or of the proprietors by mail.

Sept 1.—3t. [1]

FINE WOOLED BUCKS.

THE subscriber has had left in his charge, several bucks which are a cross between the Saxon and Merino varieties. They are two years old, of good size and form, and their wool, both in quantity and quality, would be found satisfactory. Further information given on inquiry. SANFORD HOWARD.

Cultivator Office, Albany, Sept. 1, 1846.

GUANO.—200 tons, the balance of the ship Shakspeare's cargo from Ichaboe, in tight casks, for sale in lots to suit purchasers, by E. K. COLLINS & Co., 56 South-st.

The many experiments made this season from this cargo, not only prove the great gain in using it, but that it is at least equal if not superior to any other guano.

Sept, 1, 1846.—tf

FRUIT TREES.

THE subscribers would respectfully call the attention of the public to their assortment of FRUIT TREES. They are enabled this fall to offer a choice collection of many of the most esteemed varieties of Apples, Pears, Cherries, Peaches, Plums, &c., &c., &c. The assortment of trees having been considerably increased, persons desirous of obtaining articles in the nursery line, will find it worth while to examine the collection previous to purchasing elsewhere. All of which will be offered at very reasonable prices for cash.

N. B. All articles intended for distant transportation will be carefully packed at the expense of the purchaser, and delivered free of cartage to any part of the city.

WILSON, THORBURN & TELLER.

☞ Orders sent to Wm. Thorburn, Seedsman and Florist, 492 Broadway, Albany, will receive prompt attention.

Sept.1—3t.

DOWNING'S NEW WORK.

THE HORTICULTURIST,

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

THIS work, the publication of which was commenced on the first of July, 1846, may be ordered of the Proprietor, LUTHER TUCKER, Cultivator Office, *Albany*, N. Y., or of JOSEPH BRECK & Co., Agricultural Warehouse, 51 North Market-street, *Boston*; M. H. NEWMAN & Co., Booksellers, 199 Broadway, *New-York*; and G. B. ZIEBER & Co. *Philadelphia*, by whom it is published in those cities.

☞ Agents can obtain the work of either of the above publishers, at 20 per cent. discount, where five or more copies are ordered.

THE HORTICULTURIST is edited by A. J. DOWNING, Esq., and published on the first of every month, each number containing 48 pages octavo, printed in the best style, and embellished with plates and numerous other engravings, in a style similar to those given in Mr. Downing's "Landscape Gardening," and "Cottage Residences." Price $3 per annum, payable in advance.

THE HORTICULTURIST is devoted,

1. *To* GARDENING *in a thoroughly practical as well as scientific sense.*
2. *To the* DESCRIPTION *and* CULTIVATION *of Fruit Trees.*
3. *To Gardening as an* ART OF TASTE, *embracing essays, hints and designs on Ornamental and Landscape Gardening.*
4. *To* RURAL ARCHITECTURE, *including Designs for Rural Cottages and Villas, Farm Houses, Gates, Lodges, Hot Houses, Vineries, &c., &c.*

In short, this periodical may be considered a continuation of the various works on Rural Subjects, by its Editor, which have already been so favorably received by the public. It is now his object to assist, as far as possible, in giving additional impulse to the progress of Horticulture and the tasteful in Rural Life; subjects which are now so largely occupying all those interested in country pursuits.

☞ Subscriptions received by the publishers, as named above, and by the Agents for "THE CULTIVATOR," throughout the Union

NEW-ENGLAND AGRICULTURAL WAREHOUSE AND SEED STORE.

Nos. 51 and 52 North Market-Street, Boston.

FOR sale at this establishment, a general assortment of Agricultural and Garden Implements—Howard's Improved Patent Cast Iron Plows of all sizes. Martin's improved Eagle and other Plows; Double Mould Board, Side-Hill, Paring, and other plows, in great variety, and of the most approved patterns. Howard's Subsoil Plows, Cultivators of different descriptions; Willis' Seed Sower, (the best in use;) Geddes' and other Harrows of various patterns; Green's Straw-Cutters, Willis' Straw-Cutters, of various kinds and prices; Gault's Patent Churns, Grindstones or Friction Rollers; Cast Iron Field Rollers, (a very superior and substantial article;) Garden Rollers of cast-iron, different sizes; Iron Rakes of every size and variety; Garden Trowels, Syringes, in great variety; Pruning and Budding Knives; Pruning Scissors and Shears in great variety; Grass Hooks and Garden Shears; Garden and Field Hoes of every pattern; Scufflers every size; Pick Axes, Shovels, Spades, Dung and Garden Forks of every description; Hay Tools, including the very best Scythes manufactured in the country, (in all cases warranted;) Hall's and other Hay Rakes, Pitch-forks, Grain Cradles, Horse Rakes, Sickles, Austin's Rifles, Whet Stones, &c., &c.

Also a complete assortment of Chains, viz:—Fence Chains—Trace do —Ox do.—Dog do.—Tie-up do. Hale's Horse Power; Hale's Threshing Machine and Winnowing Mills, Garden Engines, &c.

Also Axes, Hatchets, Bill Hooks, Hammers; Axe, Hoe, and Rake Handles; Ox Yokes, Bull Rings; together with every other article important for Agricultural or Horticultural purposes.

Harris' Paint Mill, the best in use, is also for sale at this establishment.

SEEDS, TREES, AND PLANTS.

The subscribers are enabled to furnish seeds of the purest quality, of every variety of field, vegetable, and flower seed; embracing every variety desirable far cultivation.

Also, Fruit, Forest, and Ornamental Trees and Shrubs, of every description.

Also Hardy Herbaceous Plants; Roses, embracing 500 of the best varieties; Bulbous Roots in great variety. Green-House Plants, Grape Vines, &c.

☞ Orders promptly attended to. JOSEPH BRECK & Co.

Boston, Sept. 1—tf.

TO WOOL-GROWERS.

THE subscribers have a tract of land lying in Patrick Co., Va., consisting of about *ten thousand acres*, which they wish to sell or rent. It has on it immense quantities of the largest timber, with abundance of water, and water power. A portion of the land has been cleared, and produces the finest grass in the world. We would like to dispose of it, or to enter into partnership with any gentleman who would furnish a flock of sheep, and go into the business of growing wool. Apply by letter to either of the subscribers, at Cumberland Court House, Va., or in person to Col. A. Staples, Patrick Co., Va., who will show the land.

WILLIAM W. WILSON
WILLIS WILSON.

Sept. 1—6t.

NURSERY OF J. J. THOMAS,

Macedon, Wayne Co., N. Y.

A FINE collection of fruit trees are offered for sale at this nursery, *all* of which have been propagated from *bearing trees*, whose genuineness or excellence, and fitness for the climate, have been thoroughly proved by the personal examination of the proprietor. It has been a principal object to avoid the confusion resulting from a numerous list of varieties, and to present only a moderate collection of the very finest kinds. To accomplish this, many years have been occupied, and selections have been made from several hundred sorts in bearing, none but the finest being chosen, after thorough examination and trial.

The Ornamental Department comprises a very select list of hardy shrubs and herbaceous perennial plants.

The new Catalogue of this nursery will be forwarded gratis by mail, on every post-paid application.

Oct. 1—2t

ISABELLA GRAPES,

OF proper age forming vineyards, propagated from and containing all the good qualities which the most improved cultivation for over ten years has conferred on the vineyards at Croton Point, are now offered to the public. Those who may purchase will receive such instructions as will enable them to cultivate the Grape with entire success (provided their location is not too far north.) All communications, post-paid, addressed to R. T. UNDERHILL, M. D., 400 Broadway, New-York, will receive attention. He feels quite confident that he has so far meliorated the character and habits of the Grape Vines in his vineyards and nurseries, by improved cultivation, pruning, &c., that they will generally ripen well and produce good fruit when planted in most of the northern, and all the western, middle and southern states. The fall is found to be as good a time for planting vineyards as the spring, if not deferred too late in the season.

New-York, Oct. 1, 1846—2t.

A GOOD FARM IN AUBURN FOR SALE.

THE subscriber offers for sale the farm on which he now resides, in the village of Auburn, Cayuga county, consisting of 152 acres of good grain and grazing land, well enclosed and watered, and upon which are one large, and three moderate sized DWELLING HOUSES, Carriage Houses, Barns, Sheds, and other necessary out-buildings, three Apple Orchards, a great variety of choice Fruit Trees and Shrubbery, four durable Springs, three wells, two hundred rods of full stone fence, and an inexhaustible QUARRY of a superior quality of grey and blue lime stone, suitable for cutting and dressing, eligible and convenient for a continued sale of that article, either rough or hewn, according to the demand, and from which most of the elegant stone buildings in Auburn were erected.

This farm extends from North-street to and across State-street, with a front of eighty-six rods on the former and one hundred and sixteen rods on both sides of the latter—upon either of which may be advantageously sold a great number of village lots, at the pleasure of the owner. About 22 acres, including the large house, barns, sheds, two orchards and garden, lie between North-street and the Auburn and Syracuse Railroad; 65 acres, including the stone quarry and one dwelling house, lie between said Railroad and State-street, and the remaining 65 acres, with two dwelling houses, lie west of State-street—all which is in a high state of cultivation, well fenced, conveniently allotted, and in good order. The whole farm, or either of the above parcels, will be sold cheap, and if desired, time will be given for the payment of a large proportion of the purchase money.

Inquire of Luther Tucker, of Albany, Hulbert & Hall, of Auburn, or the subscriber upon the premises. GEO. B. CHASE.

Auburn, Sept. 1, 1846—4t.

SEEDLING APPLE TREES FOR SALE,

BY T. G. YEOMANS, at his nursery, Walworth, Wayne Co., N. Y., one year old, and thrifty, being from about 5 to 18 inches high, at $3 per thousand. Packages of 5000 packed free of charge. 50 cents per 1000 for less. Orders to be post-paid, accompanied with remittances.

Oct. 1—2t.

FARM FOR SALE.

A GOOD farm of eighty-two acres, situated in the town of New-Haven, (Oswego Co.) twelve miles east of Oswego village. Said farm is well adapted to grain and the different grasses. It is pleasantly located, well watered, and buildings in good repair, with plenty of excellent fruit. It is within three miles of the village of Mexico, which affords facilities for manufacturing, the various mechanic arts, &c., &c.

For further particulars inquire of the subscriber, living on the premises, or of Dr. B. E. Bowen, of Mexico.

ALPHEUS HERBERT.

New-Haven, Sept. 1, 1846.—1t*

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ALBANY AG. WAREHOUSE.

DISSOLUTION.—The co-partnership heretofore existing between the subscribers, under the firm of E. COMSTOCK & Co., is this day by mutual consent dissolved. The affairs of the late firm will be settled, and the business continued by LUTHER TUCKER.

Albany, Sept. 9, 1844 ELON COMSTOCK.
LUTHER TUCKER.

PATENT PREMIUM FAN-MILLS.

I. T. GRANT & Co., still continue to manufacture the celebrated Improved Patent Fan-Mills, at the old stand, Junction, Rens. Co., N. Y. These mills have taken the *first premium* at the following places:—New-York State Fair, at the Institute, New-York, the State Fair, at Pennsylvania, and the State Fair at Maryland. The subscribers have no hesitation in saying that these mills surpass anything of the kind ever offered in market. They are the only mill that has ever been produced that will chaff and screen wheat perfectly clean in one operation.

We also manufacture *Grain Cradles* of the very best quality, which have taken the first premium at the New-York State Fair. They are for sale at factory prices, at the following places:—

A. B. Allen's, 187 Water-st., New-York;
John Magher & Co., 195 Front-st., New-York.
Luther Tucker's Ag. Warehouse, Albany;
H. Warren's, Troy; and
Viall & Warren's, Mechanicsville, Saratoga Co., N. Y.

All orders thankfully received and punctually attended to. All goods delivered at Troy, N. Y., free of charge.

I. T. GRANT, &Co., Junction P. O., Rens. Co., N. Y.
Feb. 1—tf [2]

CHERRY STOCKS FOR SALE.

A FEW thousand fine Cherry Stocks, of mazzard varieties, of one years' growth and from one to two feet high, for sale on all pre-paid orders, at $10 per thousand, with no charge for packing, by J. J. THOMAS,
Oct. 1. at his nursery, Macedon, Wayne Co., N. Y.

FRUIT TREES FOR SALE CHEAP.

AT the Walworth Nurseries, about 7000 thrifty Peach Trees, of the choicest varieties cultivated in Western New York, at $15 per hundred, or 18¾ cents smaller quantities. Also, several thousand Pear, Plum, and Cherry trees, of select varieties. Address, post-paid, at Walworth, Wayne Co., N. Y.
Oct 1—2t. T. G. YEOMANS.

DUTCHESS AGRICULTURAL INSTITUTE.

Located twelve miles east of the village of Poughkeepsie, on the "Wilkinson Premium Farm," in the western valley of Union Vale, Dutchess Co.

THE winter session of this institution commences the first Thursday of October; the summer session the first Thursday of April.

The course of studies in this institution is such as to give the student every facility for acquiring a most thorough knowledge of *Scientific and Practical Agriculture*, with the use of the best modern improved implements; a select Farmer's Library, with numerous Agricultural Periodicals, and instruction in all the collateral branches.

There will be regular lectures, of which the students will make abstracts, to serve both as examinations and as exercises in composition, delivered on

TECHNICAL MINERALOGY—applied to Rural Economy, Commerce, Chemistry, Mining, and Architecture—illustrated by Mineralogical Cabinet, and excursions for observation.

PRACTICAL BOTANY—applied to Horticulture, Veterinary Medicine, Rural and Domestic Economy—illustrated by living specimens, and excursions for observation.

ZOOLOGY—applied to Rural Economy, Commerce, and Manufactures—illustrated by living subjects, skeletons, &c. The Zoonic course will commence with the HORSE.

NATURAL PHILOSOPHY AND AGRICULTURAL CHEMISTRY—illustrated by efficient experiments, by Prof. S. E. Haskel, late of the Van Rensselaer Institute, of Troy.

Mathematics, in all their branches are thoroughly taught.

A practical knowledge of the Modern Languages is insured by weekly Lectures, Discussions, Orations, Essays, and Conversations in them.

The soil of the farm embraces a great variety, and is well adapted to experimental farming. Its location is pleasant and healthful,—the building extensive and commodious.

Fee for the year, $200, payable semi-annually in advance—which includes Tuition, Board, with beds and bedding, Toilette Furniture, Washing, Mending, Fuel, and Lights.

☞ Farmers, pupils from other schools, or other citizens desirous of attending each or any course of lectures, can obtain admission tickets by applying to the Principal; for a single course for $5, or $3 per course where they attend two or more—payable in advance. Extensive accommodations for horses are provided.

This Institution is under the patronage of the Am. Ag. Association, The Farmer's Club of the Am. Institute, and the Dutchess Ag. Society. Address JOHN WILKINSON,
Principal Dutchess Ag. Institute, Poughkeepsie, N. Y

REFERENCES.

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William A. Davies, Esq., President of the Farmers' and Manufacturers' Bank;
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Rev. Abm. Polhemus, Hopewell, Dutchess County;
" H. G. Ludlow, Poughkeepsie; " "
" S. Mandeville, La Grange; " "
John Van Wick, Esq., New Hamburg. "
Oct 1—2t.

HOVEY'S PATENT SPIRAL STRAW-CUTTER.

THESE machines are thought to excel all others for cutting hay, straw, or corn-stalks. The knives being supported by wings cast on the cylinder, are rendered sufficiently strong to cut the largest corn-stalks with great ease and dispatch, and as the knives are regulated by set-screws, it gives them a great advantage over all other cylinder cutters. There are other cylinder cutters the knives of which are fastened with rings at the end without wings to support them, and on such cutters the knives are wholly unadjustable, except with keys or wedges, the use of which is thought to be an infringement on the rights of Mr. Hovey. The prices of these machines are, for No. 1, $10; No. 2, $12; No. 3, $15; No. 4, $20. For sale at the ALBANY AG. WAREHOUSE, 23 Dean-st., and 10 Maiden Lane.

IMPORTED THOROUGH BRED SHORT-HORN BULL, YOUNG FORESTER.

WM. ATKINSON offers the above named bull for sale, and any gentleman wishing to improve his breed of stock, will find this a most seasonable opportunity of doing so, as Young Forester possesses in an extraordinary degree the splendid qualities for which the Short Horns are so justly celebrated.

He is four years old, his color is a rich roan, his symmetry is perfect, his pedigree unrivalled, and he was bred by one of the most famous breeders in the north of England. It is also worthy of remark, that at the several shows in the province of Canada at which he has been exhibited, he has invariably taken the first premium of his class.

Letters (pre-paid,) addressed to WM. ATKINSON. Guelph, Canada West, will meet with immediate attention.
Oct. 1—3t.